CONSTRUCTION NEWS

PERSONALS, ENGINEERING SOCIETIES, ENGINEERING SCHOOLS, READERS' WANTS, INDUSTRIAL NOTES, PUBLICATIONS.

Supplement to ENGINEERING NEWS. New York, December 22, 1904.

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PERSONAL.

Parker & Bateman, Civil Engineers, of Clinton, Mass., have opened a branch office in Ayer, Mass.

Mr. T. A. Lawes has been appointed Mechanical Engineer of the New York, Chicago & St. Louis Ry., to succeed Mr. J. T. Carroll, resigned.

Mr. J. P. Johnston, Western Sales Manager at the Chicago office of the Aphons Custodis Chimney Construction Co., has resigned his position.

Mr. Ray Stevens Quick and Miss Stella Steele were married in Zanesville, O., Dec. 12. Mr. Quick is a civil engineer in the employ of the Southeastern Ohio Light & Power Co.

Mr. C. B. Paul, for the past two years Assistant Professor in the Mechanical Engineering Department of the State Agricultural College of Kansas, has resigned that position to take the Chair of Mechanical Engineering in the New Mexico Agricultural College, at Mesilla Park, N. Mex.

Mr. C. F. Mullen, until recently Engineer for the United States Coal Co., has become associated with Mr. H. C. Masters, and they will engage in a contracting business in all kinds of concrete work, under the firm name of Masters & Mullen. They will have their office in the Rose Bldg., Cleveland, O.

Mr. Nicholas S. Hill, M. Am. Inst. Elec. E., who resigned the position of Chief Engineer of the New York Water Department on Sept. 1, has opened an office for private engineering practice at 100 William St., New York City. Mr. Hill will devote himself particularly to water supply and electric power and railway work.

Mr. Charles E. Wells, M. Am. Soc. C. E., Engineer of the Reservoir Department of the Metropolitan Water and Sewerage Board, has been appointed to a position with the U. S. Geological Survey. For the past nine years Mr. Wells has been connected with the work of constructing the Wachusett aqueduct and the Wachusett reservoir, at Clinton, Mass.

Mr. O. A. Stranahan, for the past three or four years in charge of the engine business of the British Westinghouse Electric & Manufacturing Co., has left that company, and has been appointed Manager of the Power Department of the Allis-Chalmers Co., with headquarters at Milwaukee, Wis. Mr. Stranahan will have charge of the sales of reciprocating engines, gas engines, and steam turbines.

Mr. A. H. Van Cleve, M. Am. Soc. C. E., has been appointed Resident Engineer of the Canadian Niagara Power Co., to succeed Mr. Cecil B. Smith, M. Can. Soc. C. E., who has resigned to resume his consulting engineering practice. Mr. Van Cleve, who will retain his present position as Resident Engineer of the Niagara Falls Power Co., has selected Mr. W. D. Robbins to be his assistant on the Canadian side of the Niagara River, and Mr. Rudolf Rose as his assistant on the American side.

Mr. C. C. Lewis, whose resignation as Chief Engineer of the Schenectady Ry. Co., to enter the employ of J. G. White & Co., Ltd., was mentioned briefly in these columns last week, is to sail for London on Jan. 1. Mr. Lewis will take charge of the work to be carried out by J. G. White & Co., Ltd., at Montevideo, Uruguay, this company having recently secured the contract to electrify the tramways at that place. Mr. Lewis has had an extended experience of over 15 years in railway work.

Dr. Richard Simpson Woodward, Dean of the faculty of Pure Science of Columbia University, has been elected President of the Carnegie Institution, to succeed Dr. Daniel Coit Gilman. Dr. Woodward was graduated from the University of Michigan in 1872 as a civil engineer. From 1872 to 1882 he was an Assistant Engineer of the United States Lake Survey. He was Assistant Astronomer of the United States Transit of Venus Commission from 1882 to 1884, and from this latter year to 1890 he was Chief Geographer of the United States Geological Survey. During the next three years he was Assistant to the United States Coast and Geodetic Survey, and in 1893 he became Professor of Mechanics and Mathematical Physics at Columbia University. He was appointed Dean of the School of Pure Science at that institution in 1895. Prof. Woodward is the author of numerous scientific works, including the "Smithsonian Geographical Tables," "Higher Mathematics," and many memoirs and papers. He was the President of the American Mathematical Society from 1898 to 1900, and President of the Academy of Sciences from 1900 to 1902.

OBITUARY.

Charles Gilbert Belden, a contractor of Syracuse, N. Y., died Dec. 16 of heart disease. He was 47 years old.

Ossian D. Ashley, President of the Wabash R. R. Co. from 1889 to 1901, died at his home in New York City, Dec. 16. He was 73 years old.

Hiram Turner died at his home in Brooklyn, N. Y., Dec. 14, of inflammation of the brain. Many years ago he was Constructing Superintendent of Bridges for the Panama R. R.

James L. Stewart, a member of the contracting firm of James Stewart & Co., with offices in Europe, New York, Baltimore and St. Louis, died recently at Pittsburg, Pa., after an illness of several months.

Joel M. Wheeler, a retired civil engineer, died at his home in Ansonia, Conn., last week. He had been connected with the United States Coast Survey, and was one of a party who surveyed the Isthmus of Panama for a canal route. He was 69 years old.

Edwin D. McCracken died at his home in Leonia, N. J., Dec. 15, aged 66 years. Mr. McCracken had been engaged in electrical work nearly all his life, the last and most important of his discoveries being the use of paper as insulation for underground cables. For this he received the Medal of Honor from the Franklin Institute of Philadelphia.

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ENGINEERING SOCIETIES.

COMING MEETINGS.

AMERICAN ECONOMIC ASSOCIATION.
  Dec. 28 to 30, 1904. Annual meeting at Chicago, Ill Secy., F. A. Fetter, Ithaca, N. Y.
AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.
  Dec. 27 to 31. Annual meeting at Philadelphia, Pa Secy., L. O. Howard, Washington, D. C.
AMERICAN FOREST CONGRESS.
  Jan. 2 to 6, 1905. At Washington, D. C., under the auspices of the American Forestry Association.
WESTERN SOCIETY OF ENGINEERS.
  Jan. 3, 1905. Annual meeting at Chicago, Ill. Secy., J. H. Warder, Monadnock Block, Chicago, Ill.
MICHIGAN ENGINEERING SOCIETY.
  Jan. 11 to 13, 1905. Annual meeting at Lansing, Mich Secy., F. Hodgman, Climax, Mich.
AMERICAN INSTITUTE OF ARCHITECTS.
  Jan. 11 to 13, 1905. Annual meeting at Washington, D. C. Secy., Glenn Brown, Washington, D. C.
OHIO SOCIETY OF SURVEYORS AND CIVIL ENGINEERS.
  Jan. 16 to 18, 1905. Annual meeting at Columbus, O. Secy., E. G. Bradbury, Columbus, O.
WOOD PRESERVERS' ASSOCIATION.
  Jan. 16 to 19, 1905. First annual meeting at New Orleans, La. Secy., C. W. Berry, Laramie, Wyo.
ILLINOIS SOCIETY OF ENGINEERS AND SURVEYORS.
  Jan. 18 to 20, 1905. Annual meeting at Chicago, Ill. Secy., E. E. R. Gratman, 1636 Monadnock Block, Chicago, Ill.
CANADIAN SOCIETY OF CIVIL ENGINEERS.
  Jan. 24 to 26, 1905. Annual meeting at Montreal, P. Q. Secy., Prof. C. H. McLeod, 877 Dorchester St., Montreal, P. Q.
NATIONAL BRICK MANUFACTURERS' ASSOCIATION
  Jan. 30 to Feb. 11, 1905. Annual meeting at Birmingham, Ala.

CANADIAN SOCIETY OF CIVIL ENGINEERS.—At the meeting of the General Section, on Dec. 22, the discussion of the paper on "Loss of Heat from Iron Pipes" will be concluded, and a paper will be presented by Mr. B. J. Forrest on "Bridge Launching."

MONTANA SOCIETY OF ENGINEERS.—The following nominations for officers have been presented by the nominating committee: For President, Mr. E. W. King; for Vice-Presidents, Messrs. B. H. Dunshee and E. C. Kinney; for Secretary and Librarian, Mr. C. H. Moore; for Treasurer and Member of the Board of Managers of the Association of Engineering Societies, Mr. Samuel Barker, Jr.; for Trustee, Mr. R. A. McArthur.

OHIO SOCIETY OF SURVEYORS AND CIVIL ENGINEERS.—The headquarters during the annual meeting, Jan. 16, 17 and 18, will be at the Great Southern Hotel, Columbus, O. A good list of papers is expected, but the program has not yet been completed. Besides discussing papers and committee reports, the society will make a visit to the experimental sewage disposal plant of the city of Columbus, and possibly the Scioto dam, now building, will be visited.

ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.—The Structural Section of the society will meet on Tuesday, Dec. 27, when Mr. A. E. Duckham will read a paper on "Slow Combustion for Mill Building Construction as Exemplified by the Plant of the Sligh Iron & Steel Co., Connellsville, Pa." At the next meeting of the Mechanical Section, Jan. 3, 1905, the subject of Wire Ropes will be discussed in two papers. "Bending Stresses in Wire Ropes," by Mr. Samuel Diescher, and "Use and Abuse of Wire Ropes," by Mr. L. C. Moore.

INTERNATIONAL RAILWAY CONGRESS.—Many foreign governments have already appointed official delegates to the International Railway Congress which will be held at Washington, D. C., next spring. The State Department has furnished the following list of these delegates: Argentina, Carlos Maschwitz and Luis Rapelli; Belgium, E. Hubert, L. Weissenbruch, and Mr. Gerard; Bulgaria, St. Sarafoff and several heads of departments; China, Chan T'ien-Yu, Kuang Ching-Yang, the Taotai K'o Hung-Nien, and M. Jadot; Denmark, G. C. C. Ambt; France, Messrs. Perouse, Colson, Lax, Nivoit, Beaume, Pontzen, Fontaneilles, and Bernheim; Greece, P. Homere, Aristide Balanos, and N. Sideridis; Guatemala, Joaquin Yela; Italy, Cesare Rota and Grismayer Egisto; Mexico, Santiago Mendez; New South Wales, Chas. Nicholson Jewel Oliver; Paraguay, the diplomatic representative at Washington; Peru, H. G. Davis; Roumania, E. Miclescou, M. M. Romniceanou, A. L. Cottescou, Th. Dragou, J. Balu Lescou, and H. O. Schlawe; Siam, H. Gehrts; South African States, Messrs. McEwen, Hoy and Downie. Secy., W. F. Allen, 24 Park Place, New York.

FARADAY SOCIETY.—At the meeting of Nov. 23, held at the house of the Institution of Electrical Engineers in London, England, a paper was presented by Prof. L. Kahlenberg (Madison, Wis.) on "Recent Investigations Bearing on the Theory of Electrolytic Dissociation." The paper presents the argument that the theory of electrolytic dissociation is supported by isolated facts only. The disagreement of conductivities of electrolytes and non-electrolytes at 0° and 95° C. with those demanded by the theory, found by the author in 1901; the disagreement of conducting power with specific inductive capacity; the color of certain non-electrolytes as copper oleate, which has the color supposed to be due to the free copper ion; and various other facts stand out against the theory and cannot be brought into harmony by any modification of the theory. The paper was discussed by Mr. W. C. D. Whetham, Prof. Abegg, Mr. G. Rudorf, Mr. T. M. Lowry, Mr. H. Borns, Mr. H. Sand, Mr. C. H. Desch and Mr. F. S. Spiers, of which only the last two were in partial support of the author. The general opinion was that the author's criticisms do not take into account the modern developments of the dissociation theory. A second paper was on "The Potential of the Hydrogen-Oxygen Cell," by Mr. F. M. Perkin.

NEW ENGLAND WATER-WORKS ASSOCIATION.—The December meeting was held at Hotel Brunswick, Boston, on Wednesday, Dec. 14. President Edwin C. Brooks, Superintendent of the Cambridge Water-Works, presided, and there was about 90 members present. One applicant was elected as an associate. The President appointed Mr. Charles F. Knowlton, Water Commissioner at Quincy, Mass., to fill the vacancy on the Committee on Rates for Metered Water, caused by the death of George P. Wescott, of Portland.

Mr. Leonard S. Doten, Civil Engineer to the Quartermaster's Department, U. S. A., read a paper describing the Concrete-Steel Water Tower and Stand-Pipe at Fort Revere, Hull, Mass.

The second paper was by Mr. Henry J. Williams, Chemical Engineer of Boston, and was entitled "The Advantage of a Scientific Basis for Determining the Value of Fuels." The author called attention to the well-known fact that but very little fuel is purchased with reference to its quality or intrinsic value, one reason for which is perhaps the great difficulty and expense of determining the calorific value of a coal with a reasonable degree of accuracy. The best form of calorimeter for such determinations is a bomb calorimeter in which the sample is burned in oxygen gas. The Mahler bomb has been generally used. Mr. Williams described the difficulties attending the use of this apparatus, and explained his own type of bomb calorimeter, designed to overcome these objections and to simplify to the fullest extent the determination of the actual value of a coal. He accompanied the explanation with an actual laboratory determination of a sample of coal, and also described fully the methods employed to get an absolutely fair sample of the coal to be tested, in which there should be no element of selection. In discussion, Mr. R. S. Weston, of Boston, called attention to the large waste of heat values in unconsumed coal in the ash piles.

Mr. E. W. Bemis, of Cleveland, stated that each carload of coal purchased is tested by the Cleveland Water-Works. Mr. A. O. Doane, of the Metropolitan Water-Works, Boston, referred to the tests made by those works to insure getting the quality of coal purchased. The methods employed by the Cleveland and Metropolitan works are, however, much less precise than those described and illustrated by Mr. Williams.

NEW JERSEY SANITARY ASSOCIATION.—The thirtieth annual meeting of the association was held at Lakewood, N. J., Dec. 9 and 10. The principal subjects discussed were malaria and mosquitos, sewage disposal, medical inspection of schools, the control of communicable diseases and the sanitary protection of the milk supply.

Malaria, said Dr. D. E. English, of Millburn, has shown a marked diminution in New Jersey during the past 16 years. The greatest average mortality has been in Hudson County, in which Jersey City is located. Essex County, containing Newark, the Oranges and Montclair, stands eighth among the counties in mortality from malaria. Atlantic County has had the lowest average death rate of any county in the state. Another speaker expressed the belief that the day is not far distant when New Jersey would be free from malaria. This would be brought about, chiefly, by the elimination of mosquitos by means of draining and filling breeding places. The work requires the cooperation of the individual, the municipality and the state. Prof. John B. Smith, State Entomologist of New Jersey, explained that Atlantic County has a low malarial death rate because the anopheles mosquito in that section is not the malaria-spreading variety. The anopheles hibernates and when it comes out in the spring it must bite a person suffering from malaria in order to become infected with the malarial germ. If, therefore, all malarial patients could be cured during a given fall and winter mosquitos could not become infected in the spring and malaria would be stopped.

The evening session was opened by the presidential address, by Mr. M. N. Baker, of the editorial staff of this journal. The topic was "British Municipal Sanitation." Owing to the crowded program the address was brief, consisting of a summary of impressions regarding sewage treatment, refuse burning, water supply, paving, plumbing, disinfection and clean municipal government in Great Britain. On the latter point it was suggested that we have much to learn from Great Britain.

A discussion on the relations between oysters and clams and typhoid fever was opened by Dr. Edward Guion, of Atlantic City, who reviewed the various recorded outbreaks of typhoid in Great Britain and America, attributed to oysters. The Atlantic City Board of Health has prohibited the fattening of oysters within the city limits. A number of speakers showed a growing belief that oysters are now frequently contaminated by sewage and that raw oysters, of uncertain origin, are likely to be a most dangerous food.

The center of attraction of the evening's program was a paper by Mr. Edlow W. Harrison, M. Am. Soc. C. E., of Jersey City. Mr. Harrison gave a decidedly negative answer to the question, "Is there any Hygienic Objection to the Proposed Discharge of the Sewage of the Passaic Valley Into New York Bay?" In support of this conclusion Mr. Harrison stated that the sewage of New York and Jersey City now finds its way into the bay directly and that from the Passaic Valley indirectly, through Kill Von Kull; that the dilution is enormous, and that the sewage from Paterson, Passaic, Newark and other communities will be screened, under the proposed trunk sewer plan, and then discharged into deep water. Dr. Geo. A. Soper, Assoc. M. Am. Soc. C. E., was expected to have taken the negative of this question, but explained that his name was put on the program by mistake, inasmuch as it would be inappropriate for him to discuss this subject prior to the report of the commission which has been investigating the matter in behalf of the state of New York. Mr. Rudolph Hering, M. Am. Soc. C. E., briefly supported the affirmative of the question.

Mr. F. Herbert Snow, Assoc. M. Am. Soc. C. E., presented an "Illustrated Discussion of Some Successful Sewage Disposal Works." Besides the lantern slides of completed works at Saratoga Springs and elsewhere, some diagrams, tables and views were shown to illustrate Mr. Snow's recent studies for improved means of sewage disposal for Atlantic City, N. J. Slow sand filtration would have cost $500,000; contact beds, $370,000; septic tanks, $140,000. It was concluded that not even the last-named are needed, owing to the large volume of tidal water available for dilution. A system of intercepting sewers and a tidal chamber are proposed. As to sewage disposal in general, Mr. Snow placed his preference for methods in the following order: (1) Dilution, (2) intermittent sand filtration, (3) high rate bacterial processes.

The final session, on Saturday, was interesting, but the topics were not related to engineering. In a paper on "Milk and Its Environments," Mr. John O. George, of Camden, urged that too much attention is being paid to the adulteration of milk by water as compared with that given to the fouling and infection of milk produced under unsanitary conditions.

Dr. Norton L. Wilson, of Elizabeth, was elected president of the association for 1904-5. Dr. James A. Exton, of Arlington, and Mr. Geo. P. Olcott, C. E., of East Orange, were elected as secretary and treasurer, respectively. The next convention will be held at Lakewood.

AMERICAN CHEMICAL SOCIETY, NEW YORK SECTION.—Several unusually interesting papers were presented at the meeting of Friday, Dec. 9. Mr. M. L. Griffin opened the program with a paper on "The Art of Sizing Paper with Rosin Soaps," which discussed some points in a little studied technical process whose nature is probably only in part chemical. Prof. W. D. Bancroft of Cornell University presented an illustrated lecture on "The Tensile Strength of Bronzes." It appears that Prof. Bancroft is continuing the work begun by the late Prof. R. H. Thurston in investigating the properties of copper-tin alloys. But in order to enable a scientific study to be made of the factors which vary the properties of the alloys, he has devised a new procedure, as follows: Electrolytic copper and the purest obtainable tin are used, instead of commercial metals as used by Prof. Thurston. Now, since working changes the structure of a bronze, a sample will be changed when it is turned in a lathe to make the test-piece and its initial properties are masked. Hence Prof. Bancroft adopted the expedient of casting the test-pieces direct, and the only way to do this without introducing temperature effects fatal to the purpose, was to cast in a two-part mold made of Acheson graphite. These halves are not firmly clamped together, else the longitudinal contraction of the cast-piece in cooling will give rise to initial stresses. He has succeeded in making perfectly sound test castings; the test-piece, about ½-in. diameter by 8 ins. long between shoulders, is cast with its axis horizontal, and the elimination of all blowholes has been secured by using a whirling sprue. Some test results from bronzes by this procedure were presented. The compositions shown ranged from 76 to 100% copper. Various methods of heat treatment were tried. The critical points of the temperature curve were known beforehand, of course, and the annealing temperature was in each case carried above a critical point. Two of the most striking results presented were that a bronze could be made to have 72,000 lbs. per sq. in. tensile strength, and another bronze could be given a ductility of 40% in 8 ins. The strongest bronze results by heating the metal to about 650° and quenching in water. Prolonged annealing at 540° gives the most ductile metal.

By a parallel series of microphotographic examinations the structure corresponding to the various samples discussed was exhibited. This brought out clearly that there is no apparent relation between mere size of grain and physical properties. The studies are expected to be continued.

A paper of much local interest was the next: "The air in the Subway," by Prof. C. F. Chandler, of Columbia University. The speaker sketched briefly the fears which arose concerning excessive carbon dioxide or danger of bacterial infection in the air of the newly completed New York Rapid Transit Subway. Some tests of the air, published by a physician in a daily newspaper and showing but 12 to 17% of oxygen in place of the normal 20 to 21%, added to this alarm. Professor Chandler, as a private citizen and later as expert to the Health Department of the city, made careful tests of his own, with this result: Surface air: Oxygen, 20.9% maximum, 20.6% minimum. Subway air (50 samples): Oxygen, 20.8% maximum, 20.3% minimum. Average reduction of oxygen, 0.22%. These analyses were made by the Hempel method, which enables an accuracy of about 0.1% to be reached. Later he also made direct tests for CO_2, giving the following figures: Surface air (4 samples), 0.043%; Subway air (19 samples, max. 0.068%), average 0.057%; average increase of CO_2 in subway, 0.013%. These tests effectually stamp the fears of CO_2 poisoning in the subway as groundless. It is to be remembered that as the subway is full of concrete of comparatively low age, it will for some time contain higher moisture than the outside air.

The closing paper was by Mr. J. C. Minor, Jr., and was entitled "The Production and Modern Uses of Carbonic Acid," referring to liquefied CO_2. The various methods of obtaining the gas were mentioned: By calcining carbonates, by decomposing carbonates with acids, by trapping the gas evolved in fermentation tanks of breweries, by burning coke, and, lastly, by drawing from wells in mineral-water districts. This last method is rather surprising; the speaker said that in the Saratoga (N. Y.) region there are several wells operated for gas, each yielding about 20,000 lbs. gas per day. These wells are about 6 ins. in diameter and 150 to 600 ft. deep. The speaker then dealt with the uses of the gas: still almost solely for charging "soft drinks" and for forcing beer from barrels. The chief anxiety of the makers of liquefied CO_2 is to get a containing vessel strong enough and yet light enough. At present the steel seamless cylinders, of 70 to 100 lbs. water capacity, and a CO_2 capacity 67% of the water capacity, weigh 1½ to 2 times the weight of the contained gas. The pressure used in the cylinders is 1,715 lbs. per sq. in. at 110° F., and 2,240 lbs. per sq. at 130° F. The strength of the cylinders is 5,100 to 5,900 lbs. per sq. in. for seamless, and 4,900 to 5,500 for lapwelded cylinders.

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ENGINEERING SCHOOLS.

PURDUE UNIVERSITY.—The museum of locomotive design which has been started at this University under direction of Prof. F. M. Goss is to receive a notable addition in the shape of an old inside-connected crank axle locomotive of the type used to some extent in New England forty years ago. This locomotive is the "Daniel Nason," and it was presented through the courtesy of Mr. Samuel Higgins, General Manager of the New York, New Haven & Hartford R. R.

The "Daniel Nason" is said to have been built in 1858. It was exhibited in Chicago in 1893, and has since been held as a relic at Roxbury, Mass. The engine weighs about 25 tons, is complete with its tender and will be shipped to the University at Lafayette, Ind., upon its own wheels.

The University is also to become the custodian, on behalf of the same railway, of a stage-coach passenger car which is said to have been placed in service in 1[illegible]. It consists of the body of a stage-coach suspended on a simple railway truck by means of thorough-braces. It will seat inside and on its top about 20 persons.

The American Locomotive Co. has also presented to the University, the full-sized locomotive cylinders sectioned to show the piston-valve construction, which formed a part of its exhibit at the Louisiana Purchase Exposition.

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CIVIL SERVICE EXAMINATIONS FOR TECHNICAL POSITIONS.

TOPOGRAPHICAL DRAFTSMAN.—Municipal Civil Service Commission of the City of New York, Henry Berlinger, Secy., 61 Elm St., New York, will hold an examination Jan. 10 to secure eligibles to fill 20 vacancies in the position of topographical draftsman in the office of the President of the Borough of Queens. The salary is $1,200 per annum.

INSPECTOR OF BOILERS.—U. S. Civil Service Commission will hold an examination Jan. 25-26, at various places throughout the country, to secure eligibles to fill vacancies in the position of local and assistant inspector of boilers as they may occur in the Steamboat Inspection Service. The salaries range from $1,200 to $2,225 per annum.

INSPECTOR, GENERAL MECHANIC, ETC.—U. S. Civil Service Commission will hold an examination Jan. 18-19 to secure eligibles to fill a vacancy in the position of inspector of mechanical and electrical engineering, at $2,190 per annum, in the office of the Supervising Architect, Treasury Department, and vacancies as they may occur in any branch of the service requiring similar qualifications. The duties of the specific position mentioned above consists of inspecting and testing the mechanical and electrical equipments entering into the modern Government or office building, requiring high-class education and extensive experience in all branches of engineering embracing this class of work. The Commission will also hold examinations on Jan. 18 to fill a vacancy in the position of general mechanic, at $1,000 per annum, at the Yakima Indian Agency, Wash., and other similar vacancies as they may occur, and to fill a vacancy in the position of hardener of steel plates, at $1,000 per annum, in the Bureau of Engraving and Printing, and other similar vacancies as they may occur. No educational test is required in the last two examinations. An examination will likewise be held by the Commission Jan. 18-19 to fill a vacancy in the position of Assistant to the Chief Inspector, at $1,500 per annum, in the Quartermaster's Department at Large, Schuylkill Arsenal, Philadelphia, and similar vacancies as they may occur. Applicants must have a knowledge of textile fabrics, with an acquaintance of tests in determining dyes used in the various cloths, and must also have a fair understanding of china, glassware, tents, shoes, beds, flags, colors, hats, caps, and a general line of "miscellaneous supplies," such as chairs, buckskin gloves, fur gauntlets, etc.

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CONSTRUCTION NEWS.

PLANS AND SPECIFICATIONS ON FILE.

The following Plans (P.), Specifications (S.), and Bidding Sheets (B. S.), may be seen at the office of The Engineering News Publishing Co., 220 Broadway, New York:

Bids close	Work.	Place.	On file.	See issue.
Dec.				
27	Drafting materials	Wash., D. C.	P. & S.	11-24
*27	Barracks	Ft. Slocum, N. Y.	P. & S.	12- 8
*30	Dredging	Norfolk, Va.	S.	12-15
*31	Office building	Montrose, Colo.	P. & S.	12- 8
31	Traveling crane	Wash., D. C.	S.	12- 1

***Work advertised in Engineering News.**

NOTE.—We are desirous of securing specifications and bidding sheets (and plans when not too bulky) of pending work for file in our New York office for the benefit of contractors or others who may be interested in the work. If more sets than one are sent us we shall be pleased to distribute these to contractors who ask for them. When the work is advertised in Engineering News a note that the plans are filed with us will be added to the advertisement without cost.

LIST OF CONTRACTS PENDING.

Bids close.	Work.	Place.	See issue
	LIGHT, HEAT AND POWER PLANTS.		
Dec. 22	Lighting	Philadelphia, Pa	Dec. 22
Dec. 28	Lighting	Kearney, N. J	Dec. 22
Dec. 30	Lighting	New York, N. Y	Dec. 22
Dec. 31	Electric system	Renovo, Pa	Dec. 22
Dec. 31	Electric lighting	Renova, Pa	Dec. 22
Dec. 31	City lighting	Hanover, Pa	Dec. 22
Jan. 3	Electric light plant	Bay City, Mich	Dec. 22
Jan. 16	Gas franchise	Fullerton, Cal	Dec. 22
Jan. 24	Gas franchise	Oceanside, Cal	Dec. 22
Feb. 15	Generators	Chicago, Ill	Dec. 22

BRIDGES.

Dec. 22. Bridge, anchorage, New York, N. Y......Dec. 8
Dec. 22. Bridge, New York, N. Y.................Dec. 15
Dec. 27. Bridge, Albany, N. Y...................Dec. 22
Dec. 27. Bridge, Wabash, Ind....................Dec. 22
Dec. 28. Bridge, steel, Grand Rapids, Minn.......Dec. 22
Dec. 28. Bridges, Hastings, Neb..................Dec. 8
Dec. 29. Bridge steel, Latrobe, Pa...............Dec. 1
Dec. 30. Bridges, Princeton, Ind.................Dec. 15
Jan. 1. Bridge, steel, Houma, La.................Dec. 8
Jan. 2. Bridge, steel, Tombstone, Ariz...........Dec. 1
Jan. 2. Bridge, wood, Meridian, Miss.............Dec. 22
Jan. 3. Bridge, steel, Smithfield, N. C..........Dec. 22
Jan. 3. Bridges, Creston, Ia.....................Dec. 22
Jan. 4. Bridges, Vermillion, S. Dak..............Dec. 22
Jan. 4. Bridge, steel, Cleveland, O..............Dec. 22
Jan. 5. Bridge, Redding, Cal.....................Dec. 1
Jan. 5. Bridges, Phoenix, Ariz...................Dec. 1
Jan. 6. Bridge, steel, Castlewood, S. Dak........Dec. 15
Jan. 6. Bridge, steel, Dayton, O.................Dec. 15
Advertised, Eng. News, Dec. 15 and 22.
Jan. 9. Bridge, Topeka, Kan......................Dec. 22
Jan. 10. Bridges, Wayne, Neb.....................Dec. 22
Jan. 11. Bridge, Springfield, Mass...............Dec. 22
Advertised, Eng. News, Dec. 22 and 29.
Jan. 11. Bridge, steel, Billings, Mont...........Dec. 1
Advertised, Eng. News, Dec. 1 to 29.
Jan. 13. Bridge, Lewiston, Idaho.................Dec. 8

BUILDINGS.

Dec. 22. Wiring, arch repairs, New York, N. Y..Dec. 15
Dec. 23. Remodeling station, Cincinnati, O.......Dec. 22
Dec. 24. High school, Birmingham, Ala...........Dec. 22
Dec. 27. Fire building repairs, Brooklyn, N. Y...Dec. 22
Dec. 27. Wiring, Leadville, Colo.................Dec. 15
Dec. 27. Barrack, Ft. Slocum, N. Y...............Dec. 8
Advertised, Eng. News, Dec. 8 and Dec. 22.
Dec. 28. Post office, Selma, Ala.................Dec. 1
Advertised, Eng. News, Dec. 1 and 8.
Dec. 28. Building foundations, etc., Wash., D. C..Dec. 15
Advertised, Eng. News, Dec. 15 and 22.
Dec. 28. Light fixtures, Ft. Totten, N. Y........Dec. 22
Dec. 28. Auditorium, St. Joseph, Mo.............Dec. 22
Dec. 29. Armory repairs, New York, N. Y..........Dec. 22
Dec. 29. Greenhouse, New York, N. Y..............Dec. 22
Dec. 29. Post office, Vincennes, Ind.............Nov. 24
Dec. 29. Hotel, Victoria, B. C....................Nov. 3
Dec. 30. Heating, Leadville, Colo.................Dec. 8
Advertised, Eng. News, Dec. 8 and 15.
Dec. 31. Frame building, Montrose, Colo..........Dec. 1
Advertised, Eng. News, Dec. 1 to 22.
Dec. 31. Business block, Lincoln, Neb............Dec. 22
Jan. 1. Business building, Morgantown, W. Va...Dec. 22
Jan. 3. Heating, etc., New York, N. Y............Dec. 22
Jan. 3. Court house, Duluth, Minn................Dec. 22
Jan. 3. Court house, Wheeling, W. Va............Nov. 24
Jan. 3. Post office work, Kansas City, Kan.....Dec. 8
Jan. 4. Post office, Dekalb, Ill.................Dec. 8
Jan. 4. Dwelling, Baltimore, Md..................Dec. 8
Advertised, Eng. News, Dec. 8.
Jan. 4. Plumbing, Ellis Island, N. Y.............Dec. 22
Jan. 5. Structural work, Des Moines, Ia..........Dec. 22
Jan. 5. Jail plans, New Albany, Miss.............Dec. 22
Jan. 5. Post office, Ogden, Utah..................Dec. 8
Jan. 5. Hospital, Lawrence, Kan..................Dec. 15
Jan. 5. Steel beams, etc., Washington, D. C.....Dec. 15
Advertised, Eng. News, Dec. 15 and 22.
Jan. 6. Painting post office, Springfield, Ill.......Dec. 15
Advertised, Eng. News, Dec. 15 and 22.
Jan. 7. Elevator, etc., Jacksonville, Fla........Dec. 22
Jan. 9. State buildings, Columbus, O.............Dec. 22
Jan. 9. Post office, Henderson, Ky...............Dec. 8
Jan. 10. Post office, Newcastle, Pa..............Dec. 1
Advertised, Eng. News, Dec. 1 and 8.
Jan. 19. Post office, Fresno, Cal.................Dec. 8
Jan. 18. Heating apparatus, Yankton, S. Dak...Dec. 22
Advertised, Eng. News, Dec. 22 and 29.
Jan. 25. Post office, Washington, Pa.............Dec. 8
Jan. 31. Post office, Albert Lea, Minn...........Dec. 8
Advertised, Eng. News, Dec. 8 and 15.

WATER SUPPLY AND IRRIGATION.

Dec. 26. Water-works, Osceola, Neb..............Dec. 8
Dec. 28. Laying pipe, Aberdeen, Wash.............Dec. 8
Dec. 30. Water pipe, Crandon, Wis................Dec. 15
Dec. 31. Water pipe, meters, etc., Baltimore, Md..Dec. 22
Dec. 31. Water mains, Falmouth, Ky...............Dec. 22
Jan. 2. Water-works, Owensboro, Ky...............Dec. 15
Jan. 3. Pumping engine, etc., Muscatine, Ia...Dec. 8
Advertised, Eng. News, Dec. 8 to Jan. 4.
Jan. 5. Water supply improvement, Wash., Ga..Dec. 15
Advertised, Eng. News, Dec. 15 and 22.
Jan. 9. Outlet tunnel, Casper, Wyo..............Nov. 24
Advertised, Eng. News, Nov. 24 to Jan. 5.
Jan. 10. Pipe, etc., Washington, D. C............Dec. 1
Jan. 14. Pumping engine, Kansas City, Mo.........Dec. 15
Advertised, Eng. News, Dec. 15 and 22.
Jan. 14. Water pipe, Savannah, Ga................Dec. 8
Jan. 14. Water pipe laying, Sandusky, O..........Dec. 8
Jan. 16. Water pipe, North Bay, Ont..............Dec. 8
Jan. 25. Water-works, Deadwood, S. Dak..........Dec. 15
Advertised, Eng. News, Dec. 15.
Feb. 10. Water system, Bishop, Cal...............Dec. 15
Advertised, Eng. News, Dec. 8 to 29.

SEWERAGE.

Dec. 22. Sewer, water mains, Edmonton, N. W. T..Dec. 15
Dec. 26. Sewers, Albany, Ga......................Dec. 8
Dec. 27. Pipe drain, Boston, Mass.................Dec. 22
Dec. 27. Sewers, Pittsburg, Pa....................Dec. 22
Dec. 27. Sewer work, Hamilton, O..................Dec. 22
Dec. 30. Sewer, Brooklyn, N. Y....................Dec. 22
Dec. 30. Sewer, Omaha, Neb........................Dec. 22
Dec. 31. Pipe sewers, North Braddock, Pa.........Dec. 15
Jan. 2. Sewer system, New Albany, Ind...........Dec. 15
Jan. 3. Sewer extension, Morris, Minn...........Dec. 15
Jan. 3. Sewers, Springfield, Mo..................Dec. 22
Jan. 3. Sewers, Marion, Ind.......................Dec. 22
Jan. 4. Sewer system, Jefferson City, Mo.........Dec. 22
Jan. 4. Sewers, Mamoroneck, N. Y.................Dec. 15
Advertised, Eng. News, Dec. 15 to 29
Jan. 16. Sewer system, Amarillo, Tex.............Dec. 22
Jan. 31. Sewers, water pipe, etc., New Orleans, La..Nov. 24
Advertised, Eng. News, Nov. 24 to Jan. 19.
Feb. 10. Sewer system, Bishop, Cal...............Dec. 15
Advertised, Eng. News, Dec. 8 to 22.

STREETS AND ROADS.

Dec. 23. Macadamizing, Collingswood, N. J.......Dec. 8
Dec. 23. Grading, New York, N. Y.................Dec. 15
Dec. 23. Paving, Toledo, O........................Dec. 15
Dec. 23. Boulevard, Indianapolis, Ind............Dec. 22
Dec. 23. Paving, Buffalo, N. Y....................Dec. 22
Dec. 27. Paving, Green Bay, Wis...................Dec. 22
Dec. 27. Roads, Boston, Mass......................Dec. 22
Dec. 28. Sidewalks, etc., Brooklyn, N. Y..........Dec. 15
Dec. 29. Roads, Winamac, Ind......................Dec. 1
Dec. 29. Paving, asphalt, New York, N. Y.........Dec. 22
Jan. 2. Sidewalks, Montgomery, Ala..............Dec. 22
Jan. 3. Road, Waterbury, Conn....................Dec. 22
Jan. 7. Road, gravel, Lebanon, Ind...............Dec. 22
Jan. 7. Macadamizing, Norwood, O.................Dec. 22
Jan. 11. Paving, Glenville, O.....................Dec. 22
Jan. 13. Asphalt repair plant, Omaha, Neb.......Dec. 15

MISCELLANEOUS CONTRACTS.

Dec. 23. Fire hose, New York, N. Y...............Dec. 15
Dec. 25. Coal unloading apparatus, Belgium.......Oct. 20
Dec. 27. Cranes, etc., South Africa..............Nov. 10
Dec. 27. Drafting materials, etc., Wash., D. C...Nov. 24
Dec. 27. Fire alarm apparatus, etc., N. York, N. Y. Dec. 22
Dec. 27. Steel rope, etc., Washington, D. C.....Dec. 22
Dec. 28. Boiler, Central Islip, N. Y.............Dec. 22
Advertised, Eng. News, Dec. 22.
Dec. 28. Telephone material, Australia..........Nov. 24
Dec. 28. Telegraph material, etc., Australia......Nov. 17
Dec. 28. Wagons, concrete mixer, etc., Bkln., N. Y. Dec. 15
Dec. 29. Manila rope, New York, N. Y............Dec. 22
Dec. 30. Rails, Norway............................Dec. 15
Dec. 30. Dredging, Norfolk, Va...................Dec. 8
Advertised, Eng. News, Dec. 8 and 15.
Dec. 30. Box lockers, Jeffersonville, Ind........Dec. 8
Dec. 31. Portland cement, Washington, D. C.....Nov. 24
Dec. 31. Traveling crane, Washington, D. C.......Dec. 1
Dec. 31. Drains, Clinton, Ill.....................Dec. 15
Jan. 1. Ditch, Fort Dodge, Ia....................Dec. 15
Jan. 4. Barges and boats, St. Louis, Mo.........Dec. 8
Advertised, Eng. News, Dec. 8 to Jan. 4.
Jan. 4. Mail conveying system, Chicago, Ill....Dec. 15
Advertised, Eng. News, Dec. 1 to 22.
Jan. 5. Garbage crematory, Ft. S. Houston, Tex. Dec. 8
Jan. 5. Fuel oil, etc., Phoenix, Ariz............Nov. 24
Advertised, Eng. News, Nov. 24 to Jan. 4.
Jan. 6. Garbage cans, shovels, etc., Wash., D. C. Dec. 15
Jan. 6. Box lockers, San Francisco, Cal........Dec. 22
Jan. 7. Elevator and lift, Washington, D. C.....Dec. 22
Jan. 7. Timber, Washington, D. C................Dec. 15
Jan. 7. Drain, Sarina, Ont.......................Dec. 8
Jan. 9. Dredging, Norfolk, Va....................Dec. 22
Advertised, Eng. News, Dec. 22 and Jan. 5.
Jan. 9. Laundry plant, Los Angeles, Cal..........Dec. 22
Jan. 10. Portland cement, Roswell, N. Mex......Dec. 22
Advertised, Eng. News, Dec. 22 to Jan. 12.
Jan. 14. Dike, Mare Island, Cal...................Dec. 8
Jan. 16. Dynamite, explosives, Wash., D. C.....Dec. 15
Advertised, Eng. News, Dec. 15 to Jan. 18.
Jan. 17. Machine tools, Washington, D. C.........Dec. 22
Jan. 17. Motors, wire, etc., Washington, D. C....Dec. 22
Jan. 20. Ry. const'n, Guthrie, Fairview & Western. Dec. 22
Jan. 24. Machinery, Washington, D. C.............Dec. 22
Jan. 25. Dredging, New Orleans, La................Dec. 8
Feb. 8. Dam and bridges, Phoenix, Ariz.........Dec. 1
Advertised, Eng. News, Dec. 1 to Feb. 5.
Feb. 15. Dredging, Chicago, Ill...................Dec. 15
Advertised, Eng. News, Dec. 15.
Mar. 31. Electric railway, China.................Oct. 20
Advertised, Eng. News, Oct. 20 to Dec. 29.
Apr. 1. Dredging, Sweden.........................Nov. 24
May 1. Light house, Egypt........................Dec. 22

RAILWAYS.

ALABAMA.—Col. F. M. Abbott, of Selma, Ala., is interested in project to build a 67-mile railway from Selma to Birmingham.

ARKANSAS, MISSOURI & KANSAS.—D. W. Spooner, Ch. Engr., Joplin, Mo., informs us that many miles have been graded. No rails have been laid yet. Announcement of proposed construction will be made at a later date. A. N. Hoxie, Boston, Mass., is Pres. The proposed route is from Chanute, Kan., southeast through Joplin, Mo., to Memphis, Tenn.

ATCHISON, TOPEKA & SANTA FE.—James Dun, Ch. Engr., of Santa Fe System, Chicago, writes us that the following construction was accomplished during 1904: Hot Springs branch, New Mexico, extended 0.62 miles; double-track, Olathe to Clare, Kan., 5.31 miles; double-track, Emporia to Wiggam, Kan., 4.35 miles; Phoenix & Eastern Ry., from a point 4½ miles west of Florence to Winkelman, Ariz., 48.49 miles; stations—Florence, Price, Cochran, Zellweger, Kelvin Burns, Winkelman. Bradshaw Mountain Ry. Co., extension from Saddle to Crown King, 6.17 miles; Arizona & California Ry. Co., from near Wickenburg, Ariz., to a point five miles west; Gulf, Colorado & Santa Fe., Saratoga Branch, Bragg to Saratoga, 9.17 miles; Oakland & East Side Ry., from Richmond to Oakland, 11.32 miles; extension of Sunset Ry., from Sunset to Maricopa, 2.46 miles. San Francisco & Northwestern Ry., Camp 9 to Snively, 2.3 miles.

BALTIMORE & OHIO.—During the calendar year 1904 the construction department of the Baltimore & Ohio has changed 29.35 miles of track, built 55.4 miles of new road and 86.85 miles of second track. This work includes the construction of the Point Pleasant, Buckhannon & Tygarts Valley Railroad, from Lenley Junction to Buckhannon, W. Va., a distance of 12.6 miles; the second track between New Castle Junction and Struthers, O., a distance of 14.2 miles; double track, from Haselton to Niles, O., a distance of 8.5 miles. From Niles, O., to Cuyahoga Falls, an entirely new double-track line has been built, a distance of 42.8 miles, and changes of alinement and grades have been made and second track constructed, from Flushing, O., to Fairport, O., a distance of 11.27 miles, and from Barton to Bridgeport, O., a distance of 9.15 miles. All of this work is practically completed, although some of it will not be in use before January 1. It has not as yet been decided what construction work will be done during the next year.

BESSEMER & LAKE ERIE.—Extension improvements have been recommended and an appropriation asked with which to carry on the proposed work. This includes, it is said, 11 miles of new double-tracking. New rolling stock has been ordered. J. M. Ritchie, Pittsburg, is Purchasing Agt. H. T. Porter, Greenville, Pa., is Ch. Engr.

BUTTE, BOISE & SAN FRANCISCO.—L. G. Wilkerson, Weiser, Idaho, writes us that this railway is "a defunct organization, picked up by Boise papers recently for boom purposes." It is said that the proposition will be agitated and that a builder may be secured. Mr. Wilkerson was named by Boise papers as the prospective backer.

CHICAGO, ROCK ISLAND & PACIFIC.—Concerning the press report that this company would build the long-talked-of extension to the Gulf of Mexico from a point in Texas, B. L. Winchell, Pres. of the Rock Island System, announces that "company is in no way planning or negotiating for the construction of a line from Dallas to Galveston."

CINCINNATI BELT LINE.—C. E. Schaff, Gen. Mgr. of Cleveland, Cincinnati, Chicago & St. Louis, Ry., James McCrea, Vice-Pres. of the Pennsylvania Lines, J. A. Edson of the Cincinnati, Hamilton & Dayton Ry., and W. A. Garrett, Gen. Mgr. of the Cincinnati, New Orleans & Texas Pacific Ry., are reported interested in plan to build a belt line in this city. C. G. Waldo, former Gen. Mgr. of the Cincinnati, Hamilton & Dayton, is manager of the new company, it is reported.

COLUMBUS, MEMPHIS & PENSACOLA.—Capital has been secured for constructing this line, it is said, by Newnan Cayce, the Pres. It is probable that this company will merge its interests with the Pensacola, Alabama and Tennessee road, which already has constructed a line 23 miles long from Pensacola, and has established a permanent survey to Demopolis.

DENVER, ENID & GULF.—An extension is reported to be considered from Guthrie to Oklahoma City, about 30 miles. E. L. Peckham, Vice-Pres. and Gen. Mgr. and other officials have conferred with the Chamber of Commerce at Oklahoma City upon the proposition. W. D. Gerber, Enid, Okla., is acting Ch. Engr.

DETROIT & MACKINAC.—It is unofficially announced that the proposed railroad line between Sault Ste. Marie and Detour, at the mouth of St. Mary's River, will be constructed next year. Chicago and New York capitalists are reported interested. The estimated cost is $[illegible]. It is intended to operate the road in connection with the Detroit & Mackinac line, which has its northern terminus at Cheboygan. Between the latter place and Detour a car ferry will be operated. H. S. Waterman, East Tawas, Mich., is Ch. Engr.

GRAND TRUNK.—This company is reported to have purchased 100 acres of land at Battle Creek, Mich., where several buildings will be erected. Estimated cost of work, $1,000,000. W. G. Brownlee, Detroit, is Supt.

GUTHRIE, FAIRVIEW & WESTERN.—Bids are asked by Geo. C. Cowles, Ch. Engr., at office of the Guthrie, Fairview & Western Construction Co., Sheidley Bldg., Kansas City, Mo., until Jan. 20, for grading the Guthrie, Fairview & Western R. R., in sections, from Darrow, Okla., to Fairview Junction; from Darrow 10 miles west toward Cantonement; from Darrow to Ken, and also for that portion of the company's road to be built in Guthrie on Seventh St. south of Cottonwood Creek, and from Sixth St., where it intersects the Santa Fe right-of-way, north to a connection with the St. Louis, El Reno & Western R. R., and a branch to a connection with Ft. Smith & Western. Profiles and specification of the work to be done may be seen at the chief engineer's office, or at the office of Hon. Horace Speed, at Guthrie, Okla. The company will consider bids, either for all of the dirt work in ten-mile sections or in five-mile sections.

LAKE SHORE & MICHIGAN SOUTHERN.—It is announced in press reports that this company will build an air line from La Porte to Pine, Ind., a distance of 35 miles. E. D. Handy, Cleveland, O., is Ch. Engr.

LOUISIANA.—The Crowell & Spencer Lumber Co., of Long Leaf, La., has let a contract to W. B. Wilburn, of Andrew, La., and O. E. Gammill, of Edgerly, La., to grade a standard-gage railroad from Long Leaf, on the Watkins Railway, to Lecompte, where connection will be made with the Texas & Pacific or Southern Pacific Railroads. The road will be twelve miles long. There is only one bridge of any importance, that being across Bayou Boeuf at Lecompte. The contract calls for the grading to be completed by Aug. 1, 1905.

LOUISIANA RY. & NAVIGATION CO.—A Baton Rouge, La., report announces that the Louisiana Railway & Navigation Co., with headquarters at Shreveport, La., will soon advertise for bids and let contracts for the construction of the new road between Baton Rouge and New Orleans, a distance of 89 miles. W. E. Hawley, Shreveport, is Ch. Engr.

MOBILE, JACKSON & KANSAS CITY.—The line from Newton to Philadelphia, Miss., has been graded by the Worthington Construction Co., of Birmingham, Ala. Track-laying may begin about Jan. 15, according to a reported announcement by Division Engineer McDonald. A. N. Bullitt, Mobile, Ala., is Ch. Engr.

MONROE & LAKE PROVIDENCE.—J. D. Garrison, Ch. Engr., Monroe, La., writes us that surveying party is now running location survey. The projected length is 62½ miles, from Monroe to Lake Providence via Oakridge and Floyd. A. A. Gunby is Pres. Noted on Dec. 8.

OKLAHOMA, TEXAS & GULF.—Alfred S. Tubbs, Sec. and Treas., writes us from Clarksville, Tex., under date of Dec. 10: "Sixty-five miles of this line have been definitely located from Clarkville south in the vicinity of Longview; 50 miles of right-of-way have also been secured by deeds and contract. The second field party is about to start north from Clarksville. Crossing the Red River near the mouth of the Kiamichi River the location will be extended towards the coal fields of Indian Territory. It is not definitely known when construction will be commenced, but probably within sixty days. D. W. Boliche is Gen. Man. and Ch. Engr.; Alfred S. Tubbs, Secy."

PENNSYLVANIA.—It is reported that this company will spend $10,000,000 for track elevation in Cleveland, O. The plans provide for a four-track system across the city, instead of the present double tracks with grade crossings. An ordinance of the Cleveland Council requires the work of track elevation to be completed by June 1 next, but railway officials say it cannot be finished by that time.

TEXAS.—A committee, composed of L. J. Polk and H. E. Garvey, who are the chief promoters of the enterprise, is soliciting subscriptions from the land owners and citizens along the route of the proposed railroad from San Antonio via Pleasanton, Tilden and Hebbronville to Rio Grande City, a distance of about 225 miles. The depot and terminal grounds, it is expected, will be donated to the company by the citizens and communities along the line. City of San Antonio probably will contribute $100,000. L. J. Polk may be addressed at San Antonio, Tex.

TEXAS SOUTHERN.—Bids were called for on Dec. 6 at Marshall, Tex., for purchase of this road, without rolling stock. No bids were received. S. P. Jones is Receiver.

WESTERN PACIFIC.—E. T. Jeffery, Pres. of the Denver & Rio Grande Ry., has been elected Vice-Pres. of this Company. President W. J. Bartnett has announced that contracts will be let at once for construction of this road from Salt Lake City, Utah, to San Francisco. The line probably will run through Oakland, Stockton, Sacramento, Oroville and Beckwith Pass, Cal., about 850 miles with 440 additional miles of branches. Capital stock is $50,000,000. Charles Harlowe will be division engineer, located at Oroville, Cal. G. L. Dillman, Safe Deposit Bldg., San Francisco, Cal., is Ch. Engr.

Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited. Full details regarding the equipment, tools, etc., required for the proposed improvements are specially desired.

VIRGINIA & SOUTHEASTERN.—E. S. Fraser, Ch. Engr., Bristol, Tenn., informs us that surveys now in progress will be completed early in January. Contracts will then be let. H. K. McHarg, New York, is Pres. The line will be 37 miles long, running from Tom's Creek and Cockwin to connect with Virginia & Southwestern Ry. at Clinchport. Previously noted.

NEW INCORPORATIONS AND CHARTERS,

ATHENS, FLORAL PARK & NEWNAN AIR LINE.—Ga.—Clyde L. Brooks, 508 Gould Bldg., Atlanta, is reported to have drawn up a charter for this company. It will be organized to build from Athens, Ga., via Monroe, Conyers, Floral Park and Fayetteville to Newnan, about 90 miles. Ransom Rogers, 625 Empire Building, Atlanta, will, it is said, make survey; J. S. Betts, railroad contractor, of Ashburn, Ga., may build the road.

ATHENS & STATESBORO.—Ga.—Company has been chartered with $3,000,000 capital to build from Athens, Ga., to Statesboro. Cecil Gabbett, Pres. Savannah & Statesboro Ry., at Statesboro, Ga., is reported interested. Survey has been made and grading will begin soon.

CENTRAL TEXAS & GULF.—Me.—This company has incorporated under name of the Central Texas and Gulf Railway Construction Co., with a capital of $1,000,000. Main office will be at Kettry, Me. Horace Mitchel, M. G. Mitchel, Kettry, and A. M. McLoon, Newcastle, Me., are incorporators.

DURANGO, ALBURQUERQUE & GULF.—N. Mex.—Incorporated with $6,000,000 capital stock. The incorporators and directors are: Delegate-elect-to-Congress William H. Andrews; Willard S. Hopewell, of Santa Fe; Francis J. Torrance and Arthur Kennedy, of Pittsburg, and T. Lee Clark, of Allegheny, Pa. It is said that these are the men who built the Santa Fe Central Railway. The line will be 200 miles long, 21 miles being in Colorado.

MANITOWOC, GREEN BAY & NORTHWESTERN.—Wis.—Capital stock of this company is $25,000. It was incorporated in Wisconsin to build a railroad in the interest of the Chicago & Northwestern from Manitowoc northwest via Green Bay to Eland Junction, with a branch from Pulaski to Gillett, a total of 123 miles. Incorporators: J. M. Whitman, W. A. Gardner, M. M. Kirkman and J. B. Redfield. Marvin Hughitt, Pres. of Chicago & N. W., is principal stockholder.

THEBES BRIDGE & WESTERN.—Mo.—Incorporated with an authorized capital of $300,000 to build a railroad from the Mississippi River in Scott County, Mo., to the Caster River in Stoddard County, 35 miles. S. M. McCoy, V. O. Boone and others, of Benton, Mo., are named as incorporators.

WEST FORK BELT.—W, Va.—Company has been incorporated to build a railroad in Harrison County from a point near Meadowbrook on the West Virginia Short Line to a point near Bloom. J. W. Jacobs, C. H. Jenkins, J. M. Brownfield and others, of Fairmont, W. Va., are incorporators.

STREET AND ELECTRIC RAILWAYS.

BOSTON, MASS.—The Fort Pitt Bridge Co., of Pittsburg, received the contract for 12,000 tons of structural steel for Forest Hill extension of Boston Elevated Railroad. New York office, 45 Broadway.

BALLSTON SPA, N. Y.—Village Trustees have granted to Schenectady Ry. Co. permission to extend its line from Ballston Spa to Saratoga Springs.

SOUTH AMBOY, N. J.—An application has been made to Borough Council for a franchise for the extension of tracks of Public Service Corporation in Pine Ave. to borough line. D. F. Carver, 29 Exchange Place, Jersey City, is Ch. Engr.

HARRISBURG, PA.—The following street railway corporation charters have been issued at State Department: Marshall Ave. Street Ry. Co., 6 miles, from Perryville and Marshall Ave., Allegheny, to Brighton Road to Pittsburg. Capital, $36,000; Wm. Kaufman, Allegheny, Pres. Greenville Street Ry. Co., 4½ miles. Capital, $26,000; Curtis G. Hussey, Allegheny, Pres. Watson Street Ry. Co., Allegheny, 1½ miles. Capital, $9,000; Wm. Kaufman, Pres.

TARENTUM, PA.—An ordinance will be presented at next meeting of Council by Tarentum & Breckenridge Street Ry. Co asking for a franchise. The road will extend along East Seventh Ave. through Breckenridge Borough, thence to Freeport Road and back along East Tenth Ave. to Ross St. It is proposed to extend the line later to Butler via Freeport and Saxonburg.

CUMBERLAND, MD.—The Cumberland & Pennsylvania Railroad has under advisement a plan to operate a trolley line over Eckhart branch from Cumberland to Frostburg. It is expected will seek an entrance to Lonaconing and possibly Westernport. L. M. Hamilton, City, is Gen. Mgr.

RICHMOND, VA.—The building of the Citizens' Rapid Transit Co.'s electric line, including the construction of a viaduct connecting the city with Church Hill via Marshall St., seems to be assured. Gilbert K. Polloch, Chn. Street Com., can inform.

SUFFOLK, VA.—L. R. Britt, Geo. H. Lewis, W. D. Southall, W. H. Robinson and Geo. L. Barton have been granted a street railway franchise for construction of an electric railway here. Address Lee Britt, City.

ASHEVILLE, N. C.—Geo. E. Miles has been granted a franchise to build and operate an electric line from the city limits to a point near the Southern depot.

HIGH POINT, N. C.—R. A. Wheeler, City, and others have been granted a franchise to construct an electric street railroad.

LAKE PROVIDENCE, LA.—The Lake Providence & Gouldsboro Railroad Co., Ltd., a local company, has contracted with A. B. Sanders, of Shreveport, for the immediate construction of two miles of electric railway through Lake Providence. This line will start at river landing, go through business part of town, thence through Gouldsboro, a new addition to town of Lake Providence.

KNOXVILLE, TENN.—The Knoxville Traction Co. has decided to expend $100,000 in the next six months in making improvements. Jas. Link is Ch. Engr.

MEMPHIS, TENN.—F. R. Harris, L. G. McNair, Corwin H. Spencer and J. G. McGannon, of St. Louis, and others have been granted a franchise for a new street railway by City Council.

BETHEL, O.—The Bethel & Felicity Co., capital $165,000, has placed contracts for construction of its line from Felicity to Bethel, a distance of nine miles. At Bethel the road will connect with the Cincinnati, Georgetown & Portsmouth Railway for Cincinnati. Frank Scott is Pres.

CINCINNATI, O.—An ordinance has been introduced in Council granting a franchise to Cincinnati Rapid Transit Railroad Co. for a double-track elevated and subway electric railway from Cincinnati to Norwood. The ordinance also grants the right to build a subway and elevated stations. Referred to a committee.

COLUMBUS, O.—Thomas H. Thackery, City, who secured the right of way and franchises through Union County for Columbus, Marysville & Bellefontaine Railway, claims that the proposition has been financed, and that the contracts for construction will be let in the near future.

HELENA, O.—Citizens of Helena are endeavoring to induce the Lake Shore Electric Railway to extend its Gibsonburg spur line to Helena, a distance of six miles. They offer to assist in securing right of way. F. J. Stout, of Cleveland, is Gen. Supt.

LORAIN, O.—The Lorain Street Ry. Co. is planning to make improvements to its equipment. It is securing estimates on five new interurban cars for use between Lorain and Elyria. Additional double track will be put in between Lorain and South Lorain. There is also talk of double-tracking the entire line.

MANSFIELD, O.—David Collier, one of the promoters of Wooster & Mansfield Railway, claims that arrangements for financing the proposition have been practically completed with New York people, and that the line is very certain to be built next year. It will touch Big Prairie, Louville, Perryville and Washington.

HUNTINGTON, IND.—The Huntington, Columbia City & Northwestern Ry. Co. has been incorporated with $25,000 cap. stock. Benj. Raupfer, of Columbia City, is Pres. The proposed line will be about 60 miles long.

MUNCIE, IND.—County Commissioners have been asked to grant a right of way over certain public highways in this county for the proposed Muncie-Newcastle Electric Railway, in which is to be a branch of the proposed road from Toledo, O., to Indianapolis. E. T. Ice, who obtained right of way from Muncie to Newcastle, states that the money for constructing the line has been obtained and that the work will begin in the spring.

BEDFORD, IND.—A survey is to be made for an electric road from Bedford to French Lick Springs. The proposed road will be via Mitchell, Orleans, Paoli and West Baden Springs, and will cover a distance of 30 miles.

ST. JOSEPH, MICH.—Survey has been started for a new electric line between this city and South Haven, with branches to Paw Paw Lake and Coloma.

IRON MOUNTAIN, MICH.—Wm. A. Lombard, of New York, representing Boston capitalists, has notified Mayor Cruse of the intention of his company to apply to City Council for a franchise authorizing the construction of an electric street railway. Authority to establish an electric lighting and a gas plant may also be requested. As planned, the railway is to be part of a continuous line connecting Niagara, Quinnesec, Norway, Vulcan, Loretto and other nearby Menominee iron range towns.

EAST ST. LOUIS, ILL.—Arrangements are being made for extending the East St. Louis & Suburban Electric Railway to Troy, Ill. W. A. Bennett, City, is Ch. Engr.

SEDALIA, MO.—City Council granted a franchise to Sedalia-Warrensburg Interurban Electric Railroad to construct and operate a railway through this city. The line is to be built to the new Missouri Pacific shops in East Sedalia, through the city to Warrensburg, a distance of 30 miles. The work of construction is to commence in four months, and the line is to be operated within two years. The company has already secured right of way and purchased land upon which to erect power and machine houses.

MARSHALL, TEX.—City Council granted to Gulf, Texas & Northern Ry. Co. the right of way asked over several streets in eastern portion of city so the road could make a connection with the Texas & Pacific Ry. Co.

ALBUQUERQUE, N. MEX.—City Council has adopted an ordinance granting the Albuquerque Traction Co. the right to build an addition to its Cole Ave. viaduct and extend its line a mile in the Highlands. This extension must be built within a year.

SAN JOSE, CAL.—The San Jose & Los Gatos Interurban Ry. Co. petitioned Board of Supervisors, Mayor and Common Council for five franchises for electric roads in San Jose and eastern portion of Santa Clara County. One franchise covers lines within city limits, and the other four are for roads to Evergreen, Berryessa and Alum Rock Park. It is expected that work of construction will begin at once. F. E. Chapin is Gen. Mgr.

COLUSA, CAL.—Capt. W. T. Forsman, of the Northern Electric Railway & Navigation Co., has presented a petition to Board of Supervisors for an electric railway from Colusa north to Glenn County line.

SALT LAKE CITY, UTAH.—Utah Light & Railway Co. is said to have appropriated $250,000 for extension of its street railway system.

LIGHT, HEAT AND POWER PLANTS.

BANGOR, ME.—The Penobscot Valley Gas Co., of Bangor, has been incorporated with a capital of $125,000. F. A. Wilson, Pres., Bangor; John Wilson, Treas., Bangor. The Kennebec Water Power Co. will petition the Legislature this winter, it is said, for permission to raise the dam at the outlet of Moosehead Lake two feet, for the purpose of holding back an increased amount of water for use in the dry season by all the manufacturing plants on the Kennebec. The lake is 120 square miles in area.

PRESQUE ISLAND, ME.—Arthur R. Gould is said to be promoter of scheme to develop power of Aroostock Falls in New Brunswick. The Maine & New Brunswick Electrical Power Co. has a New Brunswick charter for this development.

WATERVILLE, ME.—W. T. Haines and others will construct a system of gas supply works next season. There is no public supply. Population, 12,000.

GREENVILLE, ME.—Plant of Moosehead Power Co. was burned on Dec. 14, according to a report.

FALL RIVER, MASS.—Joseph E. Nute, Mgr. Fall River Gas Works Co., informs us that extensions, for which increase in capital stock will be made, have already been constructed. Company is erecting a 2,000,000-ft. holder now in connection with improvements. Noted last week.

NEW CANAAN, CONN.—The Berkshire Power Co., of North Canaan, has been incorporated by Walter S. Morton and Arthur D. Newton, of Hartford, and J. Henry Roraback, of North Canaan. Capital stock is $240,000. Company will maintain and operate electric power plants. Arthur Newton, Secy., according to a report, has stated that work will be begun at once upon construction of a dam and power house at New Canaan.

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CANTON, N. Y.—The St. Lawrence Transmission Co. has incorporated to generate, buy, sell, transmit, [illegible] and deal in electricity for producing light, heat or power; also to carry on the business of lighting by electricity or using it for heat or power in various localities. Capital stock is $25,000. It is proposed to carry on operations in Massena, Louisville, Norfolk, Waddington, Madrid, Norwood, Potsdam, Canton, Rensselaer Falls, Heuvelton, Richville, Hermon, Morristown, Gouverneur, Edwards, Talcville and Ogdensburg, all in St. Lawrence County; also in Antwerp, Theresa, Alexandria, Philadelphia, Leroy, Pamelia and Watertown, Redwood, Alexandria Bay and Philadelphia and Watertown, all in Jefferson County. Names of incorporators were not given.

NEW YORK, N. Y.—Northern Westchester Light & Power Co. has been incorporated with $5,000 capital. Directors: R. S. Hull, Brooklyn; A. S. Andrews, Flushing, and John Larkin, New York.

NEW YORK, N. Y.—Bids are asked until 2 p. m. Dec. 30, for furnishing, operating and maintaining electric lamps for the term of one year from Jan. 1, 1905, to Dec. 31, 1905, for lighting that part of the structure extending from the Brooklyn terminal to the middle of the suspended span of the Williamsburg (New East River) Bridge, over the East River, between the Boroughs of Manhattan and Brooklyn. Also for lighting that part of the structure extending from the Manhattan terminal to the middle of the suspended span of the Williamsburg (new East River) Bridge. Geo. E. Best, Comr. of Bridges.

KEARNEY, N. J.—Bids are asked until Dec. 28 for furnishing lights for term of five years. Theo. C. Wildman, Town Clk. (Advertised, Engineering News.)

TRENTON, N. J.—Council has appointed a special committee to investigate advisability of building a city electric lighting plant. Councilman S. W. Throp is Chn. Com.

JERSEY CITY, N. J.—Michigan Light Co. has been incorporated to operate works for generation of gas, etc. Capital, $2,250,000. Incorporators: Walter B. Mahony, Walter Thiele, Chas. N. King, all of Jersey City.

JERSEY CITY, N. J.—The North Jersey Electric Heat, Light & Power Co. has been incorporated under the laws of New Jersey with a capital stock of $500,000, of which $100,000 has been paid in. The articles of incorporation allow the company to engage in all branches of the electrical business. The incorporators are Frank J. Smith, Benjamin P. Treacy and John O'Reagan, all of 15 Exchange Pl., Jersey City.

HARRISBURG, PA.—It is reported that the Lackawanna, Wyoming Valley & Western Ry. Co., a third rail road, will build a $1,000,000 power house in this city and another but smaller plant in Sunbury.

PHILADELPHIA, PA.—If City Councils grant the Commonwealth Electric Co. a franchise, as applied for, George R. Sheldon and other capitalists will spend $10,000,000 on the installation of a thoroughly modern electric lighting system in this city. This statement was made by Mr. Sheldon in a reported interview.

HANOVER, PA.—Bids are asked until Dec. 31 for furnishing light for streets, alleys, etc. Bids to be submitted for either gas or electric arc light for a term of one, three, five or ten years. Chas. B. Wirt, Boro. Secy.

RENOVO, PA.—Bids are asked until Dec. 31 for lighting the streets of Renovo. Bids to cover all necessary wiring, etc., for electric lighting, and to specify the price per light per annum as follows: 2,000-c. p. arc lamps; 1,200-c. p. arc lamps; 32-c. p. incandescent lamps; 20-c. p. incandescent lamps. Edwin Bower, Chn. Police and Light Com.

Bids also are asked until Dec. 31 for the construction of a municipal electric light system. Edwin Bower, Chn. Com.

PHILADELPHIA, PA.—Bids are asked by the commissioners of Fairmount Park, 127-129 City Hall, until 11 a. m., Dec. 22, for electric and naphtha lights for the year 1905. Jesse T. Vogdes, Ch. Engr. and Supt.

BALTIMORE, MD.—Ordinance has been signed by Mayor Timanus authorizing Richard B. Fentress and Summerfield B. Mediary to use the city subway; also to erect poles and wires outside the subway district, for the transmission of electricity for lighting and power purposes.

RALEIGH, N. C.—Thomas S. Fuller, Secy., Raleigh & Durham Passenger & Power Co., writes us that details for proposed power plant for this company have not been finally determined. Estimated cost is $600,000. Bids will be called for about July 1, 1905. It will be operated by water and will furnish lights for both cities of Raleigh and Durham. Noted last week.

MARION, S. C.—The Carolina Water, Light & Power Co., capital $250,000, has been chartered to build a power plant. The incorporators are J. W. Johnson and W. J. Montgomery.

CAMILLA, GA.—City has engaged Ludwig & Co., Atlanta, Ga., to draw plans and supervise the construction of electric-light plant and waterworks, it is stated; $18,000 of bonds has been voted.

EUSTIS, FLA.—P. A. Ross and J. R. Miller have been granted a franchise for the erection of an acetylene gas plant.

CLARDINA, LA.—The Lee Electric Light Co., of Clarinda, has been incorporated with $50,000 capital. J. Ren Lee is one of the incorporators.

OBION, TENN.—Obion Lighting Co. has been incorporated with capital of $6,000. An electric plant will be erected. J. E. Trout, L. A. Ward, J. W. Buchanan, D. A. Dean and others are incorporators.

NEWPORT, O.—Bids have been received for 20-year lighting contract from Union Light, Heat & Power Co. and Harvey Meyers, representing another company. Present contract is held by the Union Co. and expires in June, 1905.

TOLEDO, O.—Council has under consideration the matter of installing a municipal lighting plant during the next two years. The present contract with the Toledo Railway & Light Co. expires Jan. 1. F. I. Consaul is Cy. Engr.

COLUMBUS, O.—The Ohio Fuel Supply Co. may pipe natural gas to Cincinnati. This would involve an expense of about $2,000,000. J. M. Garard is Gen. Mgr.

ROSEVILLE, O.—The Southwestern Light & Power Co. has purchased 18 acres of ground near this town for a site for a power station.

MATTHEWS, IND.—Matthews Electric Light & Power Co. has been incorporated with capital stock of $15,000. Directors: Philip Hughes, Guy S. Rinebolt and Everett W. North.

MONTICELLO, IND.—Engineers are making a survey for purpose of locating and building three dams to utilize the water power of the Tippecanoe River. A. A. McCain, 1724 North Alabama St., Indianapolis, may be addressed.

LEBANON, IND.—A franchise for an electric light plant has been granted to the Citizens' Electric Light & Ice Co. Edmund Connor is Cy. Engr.

TERRE HAUTE, IND.—Mayor Bidaman has announced that he is in favor of municipal ownership of city electric lighting system. Committee, composed of Councilmen Allen, Cowan and Stock, will investigate the project.

BAY CITY, MICH.—Bids are asked until Jan. 3 for furnishing material and constructing an electric light plant for this city. M. J. O'Malley, Chn. Board Public Works.

ANN ARBOR, MICH.—Resolution has been adopted by Council authorizing City Clerk to call for bids for lighting city streets. Present contract with the Washtenaw Co. expires on Dec. 31, 1905.

BELLEVILLE, ILL.—The Ada Electric & Gas Co., of Belleville, is reported incorporated, with a capital of $50,000 to construct a plant for heat and light; also to manufacture ice. Incorporators: J. A. Hamilton, A. B. Raab and L. D. Turner Jr.

CHICAGO, ILL.—Bids are asked until Feb. 15 by the Board of Trustees of Sanitary District of Chicago for four 1,000-KW., 6,600-volt, 3-phase, 60-cycle generators, 164 r. p. m.; and two 350-KW. 250-volt, direct-current generators, 300 r. p. m. Zina R. Carter, Pres. Bd. S. F. Griffin, Clk., 1110 Security Bldg. Isham Randolph, Ch. Engr.

DUNKIRK, IND.—The Dunkirk Lighting Co. has incorporated to build an electric lighting plant here. Capital stock is $21,000. Jesse M. Soper, C. H. Harkins and C. O. Reynolds, all of Chicago, are the incorporators.

ST. PAUL, MINN.—An amendment to the articles of incorporation of the Patterson Street Lighting Co. has been filed, increasing the capital stock of the company from $50,000 to $150,000.

WINONA, MINN.—The Minnesota Light & Power Co will construct a power plant, to be operated partly by steam and partly by water power, at Minnesota City, to furnish power and light for Winona, Fountain City and Rollingstone. The plant will cost about $75,000.

COFFEYVILLE, KAN.—City has engaged W. K. Palmer, Consulting Engr., 718 Dwight Bldg., Kansas City, Mo., to prepare plans and specifications for rebuilding the city lighting plant and lighting system. He will superintend the construction.

EMPORIA, KAN.—Council has approved plan to rebuild electric plant at cost of $10,000. This amount was appropriated two years ago. Plans are being drawn.

MANHATTAN, KAN.—O. C. Barner, Secy. Manhattan Gas Co., writes us that plans for proposed gas plant will be prepared as soon as possible.

MISSOULA, MONT.—Maj. John McCormick announces that an engineer will begin at once upon preliminary work toward constructing an electric power plant and dam here.

ST. LOUIS, MO.—House of Delegates has passed bill providing for the lighting of city south of Keokuk St., from Mississippi River to the western city limits. Bids will be received.

ENGLAND, ARK.—City will construct electric-light plant. A committee consisting of Mayor T. J. Hudson, J. L. Jeffries and J. L. Hagler has been appointed by City Council to superintend the construction of plant.

SILOAM SPRINGS, ARK.—The Siloam Springs Railroad, Power & Light Co. has been chartered to operate an electric interurban railroad between Siloam Springs and other cities and towns, and to furnish light and power to consumers. The capital is $500,000, of which $270,000 has been subscribed. The incorporators are: D. Zimmerman, Pres.; Connelly Harrington, J. A. Riggen, R. J. Alfrey, E. C. McCulloch, C. J. Martin, C. Gamble, J. W. Webster and W. T. LaFollette.

RUSSELLVILLE, ARK.—Merchants' Light & Cold Storage Co. has been incorporated, with a subscribed capital of $25,000, to operate an electric-light and cold-storage plant. A. Bernard is Pres., R. L. Harkey, Secy. and W. T. Meek, Treas.

EL PASO, TEX.—The El Paso Gas & Electric Co., incorporated with $500,000 capital, as noted Dec. 8, has completed organization with George F. Goodnow, of Waukegan, Ill., as Pres.; C. H. Bosworth, of Chicago, Ill., vice-Pres. and Treas.; W. J. Cook, Secy., and Thos. Jones, Gen. Mgr. Company has purchased the plant of the El Paso Gas, Electric Light & Power Co., and will expend $50,000 in improvements, it is reported.

BELLINGHAM, WASH.—Thos. C. Fox, representing the Hollenbeck Co., of Albany, N. Y., has made application to the City Council for franchise to install a heating and hydraulic power plant in this city. The Puget Sound Machinery Co. is also associated with Mr. Fox. Intention is to build plant similar to the one now in operation in Seattle. Steam will be conveyed from power plant in insulated pipes. First cost will be about $18,000. Mr. Fox has charge of the Seattle plant.

FULLERTON, CAL.—Bids are asked until 8 p. m., Jan. 16th, for the purchase of a gas franchise for this city. G. A. Ruddock, Clk.

OXNARD, CAL.—Ordinance has been adopted granting a franchise to E. P. Foster for construction and operation of a gas system.

OCEANSIDE, CAL.—Bids are asked until 7.30 p. m., Jan. 24th, for a gas franchise for this city. H. D. Brodie, Cy. Clk.

MONROVIA, CAL.—Edward T. Off has applied to Trustees for a franchise to lay gas mains in the city. Referred to the ordinance committee.

SALT LAKE CITY, UTAH.—Applications for water appropriations for power purposes have been filed with State Engineer, as follows: Telluride Power Co., Provo, Utah, 80 second ft. from the north fork of Provo River to develop 3,000 HP. for electric power and lighting; A. G. Paulson, Richfield, Utah, 70 second ft. from the Sevier River, in Sevier County, to develop 450 HP. for the operation of electric lighting and for milling machinery; Continental Mines & Smelter Corporation, 20 second ft., from Little Cottonwood Creek, about one mile above the dam of Columbus Consolidated Mining Co., to develop 600 HP. for a concentrating mill; Maude Weimer, Calder Park, Utah, 5 second ft. from Deer Creek, in Piute County, to develop 600 HP for electric lighting and commercial power.

RAINY RIVER, ONT.—A press report from Calumet, Mich., states that the Koochiching Power Co., backed by Minneapolis capital, will construct a dam across the Rainy River which will raise the level of the water in the lake, increasing the available power. A flour and a paper mill are to be built on the Canadian side. It is estimated that the dam will furnish 30,000 HP. The company has recently been incorporated with a capital of $5,000,000 by E. W. Backus, A. E. Horr, R. L. Horr and G. L. Rockwood, of Minneapolis, and H. B. Winchell, of Butte.

BRIDGES.

SPRINGFIELD, MASS.—Bids are asked by Hampden County Commissioners until Jan. 11 for removing and rebuilding portions of piers and abutments of bridge over Connecticut River between Chicopee and West Springfield. Robt. O. Morris, Clk. (Advertised, Engineering News.)

HARRISVILLE, R. I.—It was voted at a special town meeting to appropriate $3,000 for the repair of highways and bridges for the remainder of the year.

SOUTH NORWALK, CONN.—Chas. N. Wood, Engr., has submitted plans and specifications for new stone arch bridge at Belle Island to the Selectmen. It is expected that bids will soon be advertised for. Est. Cost, $9,500.

BINGHAMTON, N. Y.—A new bridge across Chenango River will be erected by the Erie in the spring. W. L. Derr, Act. Ch. Engr., New York, can inform.

BINGHAMTON, N. Y.—Plans and specifications for three new bridges, two of which will be constructed in this city and one at Chenango Bridge, have been prepared by Lackawanna railroad. C. E. Wickham, Div. Engr., City, can inform.

ALBANY, N. Y.—Bids are asked by Chas. S. Boyd, Supt. Pub. Wks., until Dec. 27, 12 m., for constructing a bridge over Senaca River at Cold Spring, Onondaga County. Plans and specifications may be seen at Mr. Boyd's office; at office of Thomas Wheeler, Asst. Supt. Pub. Wks., at Syracuse; and at office of Houston Barnard, Asst. Supt. Pub. Wks., at Rochester and Buffalo.

WILKESBARRE, PA.—It is stated that W. B. Alleger, County Engr., is preparing plans for 30 new bridges throughout the county. Bids will soon be advertised for.

WASHINGTON, D. C.—A bill has been introduced in the House providing for the construction of an iron bridge across Rock Creek at Q St. N. W.

CHARLESTON, W. VA.—The suspension bridge which connects East and West Charleston collapsed.

SMITHFIELD, N. C.—W. A. Edgerton, Regr. Deeds, writes us that bids will be received by Johnston County Commissioners until Jan. 3 for construction of a steel bridge across Neuse River, two miles from Smithfield. There will be a 179-ft. span with 16-ft. roadway.

MACON, GA.—City Council is considering an ordinance to require railroads having tracks crossing streets that lead to Central City Park to put in steel viaducts across those streets.

MERIDIAN, MISS.—Bids are asked bv Board of Supervisors of Lauderdale County, until Jan. 2 for building a wooden bridge across Buckatunna Creek. B. V. White, Clk.

FULTON, MISS.—A bill has been passed by the House authorizing County Commissioners to construct a bridge across Tombigbee River here.

BARBERTON, O.—A resolution was passed by Council requiring Erie Railroad Co. to furnish plans for abolishment of Cornell St. grade crossing, and the erection of a viaduct within six months.

CINCINNATI, O.—Representatives of railroads entering Cincinnati have practically determined on the expenditure of $6,000,000 in the building of a series of viaducts and a union station in the business part of Cincinnati.

CLEVELAND, O.—Julius C. Dorn, County Clk., writes us that bids are asked by County Commissioners until Jan. 4 for constructing a steel bridge over Tinker's Creek, Newburg; also for constructing abutments over Big Creek, Brooklyn. Wm. H. Evers, County Surveyor.

HAMILTON, O.—It is reported that every bridge on the Cincinnati, Hamilton & Dayton Railroad between Cincinnati and Toledo and Cincinnati and Indianapolis is to be rebuilt. C. A. Wilson, of Cincinnati, is Ch. Engr

TOLEDO, O.—County Commissioners have postponed action indefinitely relative to building a new bridge over canal at Clark Ave., in Adams Township.

MARION, IND.—Electrolysis has damaged a $25,000 bridge that spans Mississinewa River at Washington St. I. E. Petrie is Cy. Engr.

WABASH, IND.—It is reported that bids will be received by County Commissioners until Dec. 27 for constructing a bridge on Ferry St. over Charley Creek. Cost, $10,000. W. L. Davis, County Audr.

EAU CLAIRE, WIS.—George Nelson was the lowest bidder for constructing a concrete and steel bridge at Barstow St., at $34,167.

LA CROSSE, WIS.—The La Crosse Street Ry. Co. has announced its intention of building an extension line over Black River to West La Crosse if this city will build a new steel bridge over the stream.

CRESTON, IA.—Bids are asked by Geo. Brotherton, County Audr., until Jan. 3 for furnishing all material and construction of all bridges required to be built in the year 1905.

SIOUX CITY, IA.—A preliminary ordinance has been filed with City Clerk providing for the erection of a viaduct on Wall St. The ordinance instructs City Engineer to prepare plans and specifications for the proposed structure. J. M. Lewis is Cy. Engr.

GRAND RAPIDS, MINN.—Bids are asked by County Commissioners until Dec. 28 for removing old bridge and replacing same with steel drawbridge on bank of Mississippi River. J. G. Fraser, Chn,

MINNEAPOLIS, MINN.—Park Board Improvement Committee recommended the building of Linden Hills bridge. Cost, $6,700. Twin City Rapid Transit Co., W. J. Hield, Gen. Mgr., will pay half.

MINNEAPOLIS, MINN.—It is reported that the Soo Railway bridge across Mississippi River here was totally destroyed by fire. Cost, $17,000.

TOPEKA, KAN.—It is reported that the County Commissioners will receive bids until Jan. 9 for building Sardou Ave. bridge. Est. cost, $13,000.

WAYNE, NEB.—Bids are asked by County Commissioners until Jan. 10 for building and repairing county bridges for the year of 1905. Chas. W. Reynolds, County Clk.

VERMILLION, S. DAK.—Bids are asked by L. B. Bridgman, County Audr., until Jan. 4 for constructing all bridges for Clay County for the year 1905.

Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited. Full details regarding the equipment, tools, etc., required for the proposed improvements are specially desired.

ST. LOUIS, MO.—Resolutions asking Congress to authorize the building of a free bridge across Mississippi River at this city were adopted by North St. Louis Business Men's Association.

SACRAMENTO, CAL.—The following bids were received by Board of Supervisors for constructing bridge over Sacramento River. Burrell Construction Co., $64,785; Dwyer Bros., $67,900; Clark & Heney, $59,763 (awarded contract); City Street Improvement Co., $55,980; Minneapolis Steel & Machinery So., $60,000; Clinton Bridge & Iron Works, $66,050; Jenkins & Wills, $64,590; Pacific Construction Co., $63,983. Bids for piling ranged from 50 cts. to 60 cts. per lineal foot.

PHOENIX, ARIZ.—The Maricopa, Phoenix & Salt River Valley R. R. Co. is having plans and specifications drawn for the erection of a new steel bridge, which is to be built on the line between Maricopa and Phoenix. Francis Cutting, 204 Crocker Bldg., San Francisco, Cal., is Pres.

BUILDINGS.

SKOWHEGAN, ME.—Coburn Hall Block was destroyed by fire on Dec. 16. Loss, $150,000. It will be rebuilt.

SPRINGFIELD, MASS.—Bids will be received for construction of new Technical High School. Alderman N. L. Byron is Chn. of Property Com. Gardner & Gardner are Archs. Estimated cost, $225,000.

PROVIDENCE, R. I.—Bids were received on Dec. 12 for construction of post-office, court-house and custom-house at this city, according to report, as follows:

John Peirce, 277 Broadway, New York, $439,000; time, 18 months; add alternate B, $98,000; C, $88,309. John Gill & Sons, Cleveland, O., $427,000; time, Dec. 31, 1906; add alternate A, $25,000; B, $110,000; C, $125,000. Wells Bros. Co., 160 Fifth Ave., New York, $398,700; time, 18 months; add alternate A, $31,000; B, $79,000; C, $91,000. Butler Bros. Construction Co., New York $418,000; time, Dec. 1, 1906; add alternate B, $153,000; C, $91,000. Norcross Bros. Co., Worcester, Mass., $398,300; time as specified; add for alternate A, $68,100; B, $107,100; C, $99,100. Ambrose B. Stannard, New York City, $441,313; time as specified; add for alternate A, $55,000; B, $242,000 and $136,373; C, $154,051, $151,700, $150,050, $148,213, $136,373, $125,126 or $142,130; D, $148,500. Fissell & Wagner, 1133 Broadway, New York, $431,000; time as specified; add alternate A, $49,500; B, $137,500; C, $137,500. Thomas Riley, Philadelphia, Pa., $386,799; time, 18 months; alternate A, $384,799; B, $494,273; C, $494,273. Mack & Moore, Boston, Mass., $442,600; time, Dec. 1, 1906; add for alternate A, $31,000; B, $117,000; C, $90,000. J. W. Bishop Co., Providence, R. I., $429,260; time, Dec. 1, 1906; add for alternate A, $31,614; B, $92,468; C, $112,794. J. C. Robinson, Chicago, Ill., $465,930; time as specified; add for alternate B, $90,000; Vermont white marble, $140,000. Maguire & Penniman, Providence, R. I., $418,576; time, Dec. 1, 1906; add for alternate A, $29,053; B, $105,787; C, $88,414. Conners Bros. Construction Co., Lowell, Mass., $425,000; time as specified; add for alternate B, $124,000; C, $145,000. William Gilbane & Bro., Providence, R. I., $551,547; time, Dec. 1, 1906; add for alternate B, $140,000; C, $140,000. Horton & Hemenway, Boston, Mass., $372,717; time as specified; add for alternate A, $13,785; B, $87,518; C, $86,573. P. J. Carlin Construction Co., New York, $427,000; time, Nov. 1, 1906; add for alternate A, $30,000; B, $100,000; C, $100,000. Cramp & Co., Philadelphia, $398,200; time, using limestone, 20 months; granite, 22 months; add for alternate B, $101,600. Richard E. Heningham, Brooklyn, N. Y., using Rockport gray granite, $443,700; Barry white granite, $444,153; Hurricane granite, $444,824; Jonesboro granite, $446,785; Bluehill granite, $447,346; Milford granite, $448,216; Webb granite, $449,191; Red Westerly granite, $452,070; alternate A, add $29,670; C, $544,188; D, $549,670; E, $553,210; F, $556,847; G, $557,717; H, $569,106; I, $576,396; J, $602,226; K, $604,205; L, $236,555; M, $637,555; time, Dec. 1, 1906.

STAMFORD, CONN.—A $150,000 town hall has been voted for. It will stand on site of the building burned last February.

NEW YORK, N. Y.—Bids are asked until Jan. 3 by C. B. J. Snyder, Supt. School Bldgs., Bd. Education, for installing heating, ventilating and electrical apparatus in several school buildings in Boroughs of Queens, Bronx and Manhattan.

BROOKLYN, N. Y.—Bids are asked until Dec. 27, 10.30 a. m., for repairs and alterations to hospital and training stables at 135 St. Edward's St.; also for additions to quarters of Engine Company 139 and to Hook and Ladder Company 51 and Engine Company 102. Nicholas J. Hayes, Fire Comr.

BROOKLYN, N. Y.—An addition will be built to the Jewish Hospital at St. Mark's and Classon Aves. It will cost between $125,000 and $130,000. Abraham Abraham is Pres.; Nathan S. Jonas, Secy.

ELLIS ISLAND, N. Y.—Bids are asked until 2.30 p. m., Jan. 4, for installing plumbing fixtures in main building at Ellis Island. William Williams, Comr. of Immigration.

FORT TOTTEN, WILLETTS POINT, N. Y.—Bids are asked until Dec. 28, noon, for installing electric light fixtures in one administration building, three mess hall additions and two double sets non-commissioned staff officers' quarters at this post. Geo. H. McManus, Construct. Q. M.

JAMAICA (L. I.), N. Y.—E. N. Snedeker is said to be interested in project to erect a hotel and theater building at Fulton and Union Sts. It would cost $175,000.

NEW YORK, N. Y.—Plans have been filed by Neville & Bagge, Archs., 217 West 125th St., for a 6-story brick flat and store, 100 × 108 ft., at 124th St. and St. Nicholas Ave., for A. C. & H. M. Hall Realty Co., 360 West 125th St. Cost, $130,000.

By John E. Scharsmith, Arch., 500 Fifth Ave., for eleven 5-story brick tenements, 40 × 88 ft., on Hewitt Pl., for the Longwood Realty Co., 500 Fifth Ave. Cost, $440,000.

By same architect, for five 5-story brick tenements, two 43 × 96 ft. and three 38 × 94 ft., on Longwood Ave., for James A. Frame & Sons, 105 East 70th St. Cost, $224,000.

By Horenburger & Straub, Archs., 122 Bowery, for two 6-story brick flats and stores, 50 × 87 ft., on 91st St., east of Second Ave., for A. Rothstein, 38 Broome St. Cost, $100,000.

By Bernstein & Bernstein, Archs., 72 Trinity Pl., for five 6-story brick flats, 40 × 87 ft., on 98th St., for C. & H. Friedman, 22 East 108th St. Cost, $200,000.

NEW YORK, N. Y.—Bids are asked until Dec. 29, 2 p. m., for making repairs and alterations to Seventh Regiment Armory, 67th St. and Lexington Ave. Charles V. Fornes, Pres. Bd. Aldermen. James McLeer, Brig.-Gen., commanding Second Brigade.

Bids are asked until Dec. 29, 3 p. m., by Department of Parks, for erecting an addition to Bronx Park greenhouse. John J. Pallas, Pres.

NEW YORK, N. Y.—Plans have been filed by Charles Kreymborg, 1146 Jennings St., owner and Arch. for eleven 5-story brick tenements, 40 × 90 ft., on Fox St., east of Prospect Ave. Cost, $385,000.

By Gordon, Tracy & Swartwout, Archs., 156 Fifth Ave., for a 12-story brick hotel, 57 × 80 ft., 71 to 75 West 45th St., for the Longacre Realty Co., 135 Broadway. Building will be of brick, stone, terra cotta and limestone, with steel frame; elevators, steam heat, etc. Cost, $300,000.

NEW YORK, N. Y.—B. Altman & Co. have purchased site on Fifth Ave., 34th to 35th St., upon which they will erect a large dry-goods store.

OSSINING, N. Y.—Bill will be introduced at next Legislature to make an appropriation for improvements at Sing Sing prison. It is estimated that it will cost $800,000 for necessary repairs.

ROCHESTER, N. Y.—It is estimated that a $100,000 additional appropriation will be necessary if proposed shipping warehouses are erected. Legislature will be asked to appropriate this amount. Edwin Fisher, Cy. Engr., is interested in the project.

ROCHESTER, N. Y.—George A. Roth, Pres. Rochester Carting Co., informs us that nothing has been done definitely in connection with proposed $1,000,000 warehouse, mentioned last week.

SCHENECTADY, N. Y.—John McDermott has been awarded contract at $47,791 for masonry work at new Ellis Hospital. Other contractors as follows: Jas. Ackroyd & Sons, roofing; Shafer & Barry, painting; John P. Kelley, electric wiring; Levi Case & Co., plumbing and heating. ~~Total cost will be $110,000.~~

UTICA, N. Y.—F. H. Gouge, Arch., will prepare plans for new Sayre Block to replace the one destroyed last spring. Hon. T. S. Sayre is owner.

ATLANTIC CITY, N. J.—Heacock & Hokanson, Archs., 931 Chestnut St., Philadelphia, have invited bids for new hotel for E. V. Brown at this place.

NEWARK, N. J.—Edward M. Waldron & Co., City, have been awarded contract for additional work on Roman Catholic Cathedral of the Sacred Heart, at $317,000. J. O'Rourke & Sons, 756 Broad St., are the Archs. Total cost will be $1,000,000.

ALTOONA, PA.—The First M. E. Church, Rev. D. C. Connor, will receive bids for erecting new church on 12th Ave. Brick and stone, 1½ stories, 40 × 75 ft. Cost, $50,000.

CONNELLSVILLE, PA.—It is reported that Wm. Dull, City, will erect 5-story hotel, 50 × 124 ft., on West Pittsburg St. Cost, $100,000.

I. Aarons, City, is having plans prepared for brick, granite and terra cotta store building; six stories, 50 × 127 ft., to be erected at Pittsburg and Apple Sts., City. Cost, $75,000. Architect is Andrew P. Cooper, First National Bank Bldg., Uniontown, Pa.

JOHNSTON, PA.—H. W. Otto, Pres. Cambria Land & Improvement Co., 402 Lincoln Bldg., City, will erect a 10-story office building, 58 × 82 ft., at Lincoln Ave. and Franklin St. H. M. Rodgers, 405 Lincoln Bldg., is Arch

McKEESPORT, PA.—Work on construction of 6-story hotel, 42 × 90 ft., for Thomas White, will not be started until next spring. Cost, $70,000.

NEWCASTLE, PA.—The Pennsylvania, Baltimore & Ohio, and Pittsburg & Lake Erie Rys. will erect a Union Station in Mahoningtown.

NORRISTOWN, PA.—Henderson & Co., Ltd., of Philadelphia, were lowest bidders at $39,047 for constructing a 2-story granite and limestone post-office.

PHILADELPHIA, PA.—Bell Telephone Co. will erect a telephone exchange building at 52d St. and Lancaster Ave. It is said that mechanical equipment will be required.

A. Lee, Librarian, writes us that plans for new Union League club house, as noted last week, were voted down by members at recent meeting.

University of Pennsylvania Athletic Association will construct a $50,000 training house on Franklin Field.

PHILADELPHIA, PA.—Frank E. Wallace has been awarded contract to erect building at 33d St. and Lancaster Ave. for Rush Hospital. This is for building walls and general framework, exclusive of flooring, etc. Cost, $50,000. Brockie & Hastings are Archs.

PHOENIXVILLE, PA.—I. B. Lowrey, Arch., is preparing plans for a church, to cost $60,000, for the Roman Catholic congregation.

PITTSBURG, PA.—Bids will be received in about six months for furnishings for Carnegie Institute, mentioned last week. Alden & Harlow, Farmers' Bank Bldg., are the Archs.

WAYNE, PA.—Seymour & Paul A. Davis, Archs., 907 Walnut St., Philadelphia, are preparing plans for a sanitarium at this place for the Radnor-Wayne Sanitarium for Consumptives. A group of buildings will be erected. Cost, $100,000.

WINDBER, PA.—The Windber Hospital Association, John R. Caldwell, Secy., has awarded contract for erection of new hospital to the Windber Lumber Co., City. Cost, $50,000.

ANNAPOLIS, MD.—The Chesapeake & Potomac Telephone Co., Baltimore Bldg., will receive bids for a telephone exchange building.

ANNAPOLIS, MD.—Bids were received on Dec. 14 for constructing naval hospital at Naval Academy as follows: John C. Robinson, Chicago, $198,906; A, $193,400. Charles McCaul Co., Philadelphia, $184,905. Edgar M. Noel, Baltimore, $202,000. The General Supply and Construction Co., 24 State St., New York, $180,925. John Gill & Sons, Cleveland, O., $202,000. John Pierce, New York, $200,000. Pickens Neagle, Ch. Clk., Judge Advocate General's Office, informs us that award of contract is under consideration.

BALTIMORE, MD.—Charles L. Stockhausen was lowest bidder for building school No. 96, at $97,016. He was lowest bidder also for building school at Lakewood and Oliver Sts., at $101,583. Only $60,000 is available for constructing the school buildings.

Bids have been received for erection of Seventh Baptist Church. Charles T. Bagby is Chn. of Bldg. Com. Estimated cost, $50,000.

Plans have been prepared by Baldwin & Pennington, Archs., for new building for "Baltimore Sun" Co., to be erected at Baltimore and Charles Sts.

New Baltimore & Ohio Ry. building at Baltimore and Charles Sts. will be 155 × 168 ft., 13 stories high. Plans will be received on Jan. 12. The following architects will prepare competitive plans: Sperry, York & Sawyer, Baldwin & Pennington, Wyatt & Nolting, H. D. Hale and Parker & Thomas, of Baltimore; and Granville T. Snelling, Philadelphia; Jenney & Mundie, Chicago. D. D. Carothers, Ch. Engr., will consider plans, which will be passed upon also by Prof. Wm. R. Ware. Total cost, $2,000,000.

HYATTSVILLE, MD.—B. F. Myers, Warder Bldg., Washington, D. C., is preparing plans for a bank for First National Bank Co.

PORT DEPOSIT, MD.—Wyatt & Nolting, Builders' Exchange, Baltimore, will prepare plans for a dormitory building for the Jacob Tome Institute. Brick, stone and steel, three stories, fireproof. Cost, $80,000.

WASHINGTON, D. C.—James Stewart & Co., 319 North Charles St., Baltimore, Md., are reported to have been awarded a $1,000,000 contract for new building including train yards, power house, signal tower and express buildings in connection with the Pennsylvania Ry. Co.'s new union station.

NORFOLK, VA.—Penn Bridge Co., Beaver Falls, Pa., has been awarded contract for barracks and officers' quarters. Cost, $140,000.

RICHMOND, VA.—It is reported that an addition will be built to the Hotel Richmond and other improvements made aggregating $350,000. J. Marshall Atkinson is Mgr.

Col. John Murphy may improve the Murphy Hotel and erect a 12-story addition, involving an expenditure of $400,000.

MORGANTOWN, W. VA.—Bids are asked by Main Street Building Co., Acme Block, until noon, Jan. 1, for the construction of a 6-story theater and business block. All excavating and foundation work being finished, it will not be included in bids. Plans and specifications prepared by Huston & Demain. H. L. Swisher, Gen. Mgr.

COLUMBIA, S. C.—F. P. Milburn, Arch., has been retained by the Carolina National Bank to prepare plans for a granite and pressed brick building to be erected at Washington and Main Sts.

GEORGETOWN, S. C.—Miles & Bradt Co., of Atlanta, has been awarded contract for postoffice here, at $41,190.

ATLANTA, GA.—Plans have been completed for new Masonic temple to be erected at a cost of $100,000.

JACKSONVILLE, FLA.—Bids are asked until Jan. 7 for installation of an electric passenger elevator and hydraulic freight lift in post-office here. James Knox Taylor, Supervising Arch., Treasury Dept., Washington, D. C.

BIRMINGHAM, ALA.—Bids will be received until Dec. 24 for the erection of the new Birmingham high school building. Breeding & Whildin, Archs., room 15, Watts building.

GULFPORT, MISS.—Vossburg Lithia Springs Co. has been incorporated, with $250,000 capital, to establish pleasure resort near here.

NEW ALBANY, MISS.—Board of Supervisors of Union County will receive plans and specifications until Jan. 5, 1905, for a jail. C. S. Cullens is Clk.

CINCINNATI, O.—Bids will be received about Jan. 1 by Samuel Hannaford & Sons, Archs., for construction of Hamilton County Soldiers' and Sailors' Memorial Building at Grant and Elm Sts. Cost, $250,000.

COLUMBUS, O.—Bids are asked until Jan. 9 for construction of exhibition buildings on State Fair Grounds as follows: First, one bid for the erection of a poultry building; second, one bid for the erection of one machinery building; third, one bid for the erection of one poultry and one machinery building; fourth, one bid for the erection of two machinery buildings; fifth, one bid for the erection of one poultry and two machinery buildings. The poultry building must be completed on or before June 1, 1905; one machinery building must be completed on or before July 1, 1905, and the second machinery building must be completed on or before July 20, 1905. H. A. Linthwaite, Arch. W. W. Miller, Secy.

DAYTON, O.—Council will have specifications and plans prepared for addition of another story to City Building. It will cost about $60,000.

CINCINNATI, O.—Bids are asked by Board of Public Safety until 10 a. m., Dec. 23, for remodeling the Eighth District police station, located at 2616 Vine St. Bids will be received on the following work: Plastering, painting and glazing, plumbing and gas fitting, carpenter work and lumber. Harry Hake, Arch., 1401-1407 Union Trust Bldg. Clifford F. Lakeman, Secy.

STEUBENVILLE, O.—County Commissioners have decided to erect county infirmary building to cost $95,000. Bond issue for same has been passed. Richard Thompson, New Alexandria, O., is Chn. Plans have been submitted by J. R. Webster, Arch., which probably will be accepted.

INDIANAPOLIS, IND.—The Federal Building Co. has incorporated with a capital of $150,000, to build a skyscraper office building at Meridian and Ohio Sts. A. F. Potts, A. L. Mason and C. A. Flinn are incorporators.

INDIANAPOLIS, IND.—Grand Lodge, Knights of Pythias, will erect a large office building in this city, 10 to 14 stories in height. Architects desiring to submit plans may get particulars by addressing Harry Wade, G. K. R. S., or George W. Powell, Chn. Bldg. Co. Applications must be made before Dec. 31.

TERRE HAUTE, IND.—H. M. Spang will erect a 6-story, fireproof office building at Seventh and Ohio Sts. Cost, $350,000. Weber & Groves, Archs., St. Louis, Mo.

BATTLE CREEK, MICH.—The Grand Trunk R. R. Co., it is reported, will erect numerous buildings here at a total expenditure of $1,500,000. Joseph Hobson is Ch. Engr., at Montreal, Que.

DETROIT, MICH.—Department of Public Works and Common Council committees on public buildings have decided to reject all the proposals lately received for remodeling the city hall after plans of Donaldson & Meier, Archs., 623 Moffat Bldg. There will be further modifications in the plans to bring cost of building within $142,500; exclusive of architects' commissions. New bids will be received. William H. Maybury, Comr. Ferdinand Scheibner, who bid at $146,000 for remodeling the city hall, has announced that he would cut estimate to $133,600.

CHICAGO, ILL.—Chicago Tile & Trust Co., 100 Washington St., may erect a 5-story addition to its present 16-story building on site recently secured at 92-98 Washington St.

Barnett, Haynes & Barnett, Archs., Eighth and Locust Sts., St. Louis, Mo., have completed plans for a clubhouse to be built on Michigan Ave., south of Monroe St., for the new Illinois Athletic Club, temporary office with W. A. Merigold & Co., 140 La Salle St. 12 stories, 71 × 171 ft. of steel construction, with elaborate interior furnishings and equipment. Estimated cost, $500,000. Previously noted.

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The Chicago Athletic Association, 125 Michigan Ave., may build a 10-story fireproof addition to the present clubhouse. The addition is estimated to cost [illegible] and the furnishings $150,000 more. Ralph C. [illegible] is Treas.

Chicago Stock Exchange members have voted [illegible] proposed plan to erect a new building.

Hollabird & Roche, Archs., Monadnock Bldg., [illegible] preparing plans for Children's Memorial Hospital. Contracts will be let when $150,000 is raised. $1[illegible] is said to have been subscribed. Thomas D. Jo[illegible] Dr. Samuel J. Walker, E. W. Cramer, Wm. B. McIlv[illegible] and James F. Porter comprise building and sites committee.

CHICAGO, ILL.—R. B. Williamson, Arch. for Board of Education, has prepared plans for the Nathan [illegible] Davis school building, to be built on Sacramento Ave., between 39th St. and 39th Place. It will be three stories high, 114 × 150 ft., of pressed brick, stone and terra cotta. Cost, $95,000.

MILWAUKEE, WIS.—Alonzo Burt, Pres. of the Wisconsin Telephone Co., has announced that work will be begun on the company's new 8-story office building next spring. It will be built on Fifth St., north of Grand Ave. Cost, between $150,000 and $200,000; equipment will cost $150,000 more.

Bids will be received by Board of Public Works for construction of north side high-school. Cost, about $130,000.

SUPERIOR, WIS.—Plans for proposed government building prepared by Earl W. Barber, of Superior, have been approved by Treasury Department. Bids will be received soon.

DES MOINES, IA.—Bids are asked by Fred. A. Cope, Audr. Polk County, until noon, Jan. 5, for the following work for the new court-house: Sec. 4A—structural steel and fireproofing for tower; sec. 5—metal work and roofing; sec. 9—plumbing and gas-fitting; sec. 10—heating and ventilating. Proudfoot & Bird, 712 Crocker Bldg., are Archs. Noted last week.

DES MOINES, IA.—Methodist congregations have raised $66,000 of $100,000 fund for new church. L. M. Mann is Chn. of Board of Trustees.

H. W. Schlueter, of Chicago, has been awarded contract for construction of court house tower, at $47,000.

SIOUX CITY, IA.—Warfield-Pratt-Howell Co. has announced that it would build at once a $100,000 warehouse at Third and Jennings Sts., provided the city council will grant right to lay a sidetrack on Third St., from Wall St. to proposed building. It would be of brick and stone, 100 × 150 ft., six stories high.

SIOUX CITY, IA.—The Great Northern Railway Co. has purchased six blocks in the eastern portion of this city at a cost of over $250,000 and will build a system of terminals.

ELBOW LAKE, MINN.—Plans have been prepared by Bell & Detweiler, Archs., 712 Northwestern block, Minneapolis, Minn., for a 2-story and basement brick and stone courthouse for Grant County. It will have galvanized iron work, fireproofing, steam heat, plumbing, etc., and will cost $65,000. Contract probably will be let in February. L. C. Johnson, County Audr.

DULUTH, MINN.—Bids are asked until Jan. 3 for constructing a court-house and county building. Estimated cost, $300,000. Furnishings and equipment will cost $100,000 additional. Total cost probably will be $500,000.

MINNEAPOLIS, MINN.—F. D. McMillian will erect a $75,000 4-story brick building at 814-824 Hennepin Ave. Work will begin at once, and the structure will be completed March 1.

LINCOLN, NEB.—Bids are asked until Dec. 31 for erecting a business block at 13th and O Sts. C. L. Burr. M. Leach, Arch., Brownell Block.

YANKTON, S. DAK.—Bids are asked until Jan. 18 for installing low-pressure steam heating apparatus complete in post office here. James Knox Taylor, Supervising Arch., Treasury Dept., Washington, D. C. (Advertised, Engineering News.)

DENVER, COLO.—Eldredge & White, Archs., 411 Jackson Bldg., have plans for a modern stone and brick building of from four to five stories for the United Commercial Travelers' Association of America. Cost will be $100,000. Chas. B. Griffith, 2612 Williams St., may be addressed.

KANSAS CITY, MO.—J. P. Batchelor, of Valley Falls, Kan., has had plans prepared by J. G. Braecklein, 15 West Ninth St., for the erection of 3-story apartment house, 150 × 100 ft., of stone and brick, with terra-cotta cornices. Cost, $85,000. Building will be erected at Ninth St. and Troost Ave. Work will begin in February.

ST. JOSEPH, MO.—Eckel & Mann, Archs., Sixth and Edmond Sts., inform us that bids will be received by them until Dec. 28, noon, for erection of auditorium building for St. Joseph Auditorium Co. Building will be 140 × 240 ft., semi-fireproof, of brick, terra cotta, steel. Estimated cost, $150,000.

ST. LOUIS, MO.—Herbert C. Chivers, Arch., Chestnut and Seventh Sts., has completed plans for the People's United States Bank of St. Louis building, to be located at University Heights. Cost, about $500,000.

W. B. Ittner, Comr. of School Buildings, has submitted plans for the new Shepard School, which is to be built on Wisconsin Ave., between Cherokee and President Sts., to the Board of Education. The board will accept plans. Building will cost $150,000. Immediately after the board has acted Mr. Ittner will advertise for bids.

PLEASANTON, TEX.—Harris & Shopbell, Archs., Evansville, Ind., are completing plans for a new county court-house for Atascosa County, Tex. Estimated cost is $40,000.

LITTLE ROCK, ARK.—F. M. Welsh will erect a $300,000 office building in this city. It will be a modern 10-story building.

DENVER, COLO.—L. H. Guldman, propr. the Golden Eagle store, will spend $75,000 in improving building recently acquired on Lawrence St., near 16th St.

SEATTLE, WASH.—The Schwabacher Hardware Co. will begin the erection of an 8-story building, to cost about $250,000, as soon after Jan. 1 as arrangements can be made. Building will be of pressed brick and steel.

Heins & La Farge, Archs., 30 E. 21st St., New York, have completed plans for the Catholic cathedral and bishop's house, to be erected at Marion St. and Terry Ave. Cost, $250,000. Bids will be received by the Rev. Edward J. O'Dea, Seattle.

SEATTLE, WASH.—Plans have been received by School Board for school to be built at Summit Ave. and Union St. It will cost between $50,000 and $60,000.

Chamber of Commerce has passed a resolution urging Congress to appropriate an additional $100,000 to change the material to be used in the construction of proposed government building, substituting granite for sandstone, which it had been planned to use.

PORTLAND, ORE.—Wakefield & Jacobsen have been awarded contract for shops and roundhouses for Oregon Ry. and Navigation Co., at $140,000.

RENO, NEV.—Postmaster Dawson has stated that plans are now being prepared for the new post-office to be erected at Virginia and East First Sts. $60,000 was appropriated for the building. Work will probably begin early next spring.

LOS ANGELES, CAL.—The American Trust Co. may erect an 8-story steel frame office and hotel building, at a cost of $475,000.

Contract for fireproofing material and labor for the Bilicke Rowan Bldg., Fifth and Spring Sts., has been awarded to National Fireproofing Co., of New York, at [illegible]45. Steel work has been let to the Baker Iron Works, at $70,336. John Parkinson, 606 Laughlin Bldg., is Arch.

A 6-story business building is to be erected for Mrs. Elizabeth Hollenbeck on Broadway, north of Seventh St. Plans prepared by Morgan & Walls. Estimated cost, $90,000. Geo. Zobelein is contractor.

On Jan. 17th an election will be held to vote on the question of issuing school bonds for $520,000, for improvements and additions to the present schools.

An election to vote bonds for the erection of a library building in Central Park will be held. $300,000 to $400,000 may be appropriated. Mary L. Jones is Librarian.

SAN BERNARDINO, CAL.—Thomas Yaeger, of Portland, has been awarded contract for the erection of the proposed tourist hotel and system of bathhouses at the Arrowhead Hot Springs, at $150,000. Arthur L. Benton of Los Angeles, is Arch.

COEUR D'ALENE, IDA.—F. A. Blackwell, Pres. of Coeur d'Alene & Spokane Ry., has had plans made for a 3-story brick hotel, 152 x 140 ft., with a wing 84 ft. Estimated cost, $60,000.

MONTREAL, QUE.—We are informed that A. F. Dunlop, Temple Building, is Architect for 7-story steel building to be erected for the C. W. Lindsay Co., Ltd., on St. Catherine St. Cost, $150,000. Noted last week.

WATER SUPPLY AND IRRIGATION.

BRIGHTON, VT.—Bill has been before Legislature empowering this town to purchase and construct water-works and to issue bonds for that purpose. (Post Office, Island Pond.)

WINOOSKI, VT.—Frank O. Sinclair, Burlington, Vt., is to make surveys and estimates for securing water supply for this village.

WOONSOCKET, R. I.—Aldermen have passed resolution appropriating $45,000 for equipment at pumping station.

DANBURY, CONN.—Resolution has been passed by Aldermen empowering Mayor to take steps to obtain $200,000 bond issue for construction, repairs and extensions of the water-works.

ARCADE, N. Y.—Matter of purchasing local water-works for $20,000 may be voted on soon.

NEWARK, N. Y.—Municipal works under consideration.

WATERLOO, N. Y.—Special election is to be held soon to vote on bond issue for constructing water-works and sewers.

LOCKPORT, N. Y.—In our issue of Dec. 8 we stated that matter of water supply for this city might be voted on Dec. 13; later advices state the Council has directed that proposition of Niagara, Lockport & Ontario Water Co. be submitted to vote on Jan. 5. By this proposition city is to buy site 2½ miles distant on line of proposed canal, and is to erect there a filtering plant and pumping station, to cost not more than $300,000.

OSWEGO, N. Y.—Special election has been called for Dec. 22 to vote on securing a water supply from Lake Ontario at a cost of $200,210. Frank W. Ormsby is Supt. W. W., and James E. Mansfield is Mayor.

WEST ORANGE, N. J.—Municipal water-works considered.

CONNELLSVILLE, PA.—Town Council is stated to have taken steps for purchase of local water system, owned by Connellsville Water Co.

HONESDALE, PA.—Suit between the Honesdale Water Co. and Citizens' Water Supply, as to exclusive right to supply this place has been settled by the absorption of the former company by the latter.

CONEMAUGH, PA.—Maple Water Co., of Conemaugh, has been chartered with $20,000 capital to supply this place and Franklin with water. M. H. Bash and W. E. Snowden are incorporators.

BERWICK, PA.—T. Chalkley Hatton, Wilmington, Del., is to prepare plans for improvement of water-works of Berwick Water Co.

ELLWOOD CITY, PA.—New Castle, Pa., reports state that new water company, capitalized at $5,000, is being formed to lay mains in the spring to supply this place with water.

MUNHALL, PA.—Borough Council is reported to be arranging for installing of water-works. It is proposed to drill wells and pump water into storage tanks.

BALTIMORE, MD.—Bids are asked by Board of Awards until Dec. 31, for furnishing and delivering to Water Board such supplies as may be required for ensuing year, including cast-iron pipe, water meters, pipe fittings, valves, etc. Alfred M. Quick, Water Engr.

CLARKSBURG, W. VA.—Council has been considering ordinance to sell municipal water-works for $100,000 to syndicate represented by Judge Reese Blizzard. It is said that the new company proposes to pipe supply to city from Buckhannon River, 20 miles distant.

COLUMBIA, S. C.—Council may call special election to vote on $400,000 bond issue for new water-works.

GRACEVILLE, FLA.—We are informed that Graceville Electric Light & Water Co., M. B. May, Asst. Supt., will, if nothing prevents, be ready to award contracts about Jan. 1 for equipment, etc., for new water-works. (Mentioned in our issue of Dec. 8.)

ENSLEY, ALA.—Birmingham Water-Works Co., D. J. O'Connell, Supt., Birmingham, Ala., according to reports, will at once extend its mains from the Ensley line near Etowah Heights to Palmer Terrace.

MOBILE, ALA.—City is reported to have secured tract of land on Eight-Mile Creek, on which it may erect a pumping station to secure an auxiliary water supply. Land is two miles from city reservoir. P. J. Lyons is Mayor.

ABBEVILLE, LA.—Election has been ordered for Feb. 1 to vote on a water-works proposition.

LAWRENCEBURG, TENN.—Town Council is stated to have granted franchise for water-works and electric lights to a local company.

HAMMOND, LA.—Bond issue of $30,000 for water-works is to be voted on Jan. 10.

COOKEVILLE, TENN.—Election was held Dec. 17 to vote on $25,000 bond issue for municipal improvements—chiefly water-works and electric lights. J. Arnold is Mayor.

BARBOURSVILLE, KY.—Council was to sell water-works franchise Dec. 20.

FALMOUTH, KY.—We are informed that this city is taking bids until Dec. 31 for laying 2,448 ft. 6-in. cast-iron water pipe. E. E. Barton is Engr.

SMITHSGROVE, PA.—We are informed that company, J. R. Kirby, Mgr., proposes to install water-works to cost about $10,000. Supply is to be from deep wells, and general outfit will be installed. Designing engineer had not been engaged at time of writing, Dec. 15.

BARBERTON, O.—Contract for piping at new pumping station has been let to H. P. Cahill for $2,475.

FOSTORIA, O.—L. E. Chapin, Canton, O., has made preliminary estimates for improvement of the water-works plant of this place. The question of an adequate plant is under consideration and steps looking to its construction are to be taken.

SPRINGFIELD, O.—Appropriation of $11,000 may be made for water-main extension purposes.

YOUNGSTOWN, O.—Board Public Service has recommended erection of stand-pipe for East End, to cost about $35,000.

INDIANAPOLIS, IND.—Board Public Works, according to reports, has instructed Indianapolis Water Co., to extend several water mains, in order to furnish better fire protection.

BUTLER, MICH.—Borough is stated to have granted a franchise to John R. Thompson, Amenia, N. Y., to construct a water plant.

CHICAGO, ILL.—Following bids were received Dec. 16 for 20,000,000-gallon pump for the Lake View Pumping Station: Allis-Chalmers Co., $35,700; R. D. Wood, $49,000, $53,800 and $53,000; H. R. Worthington, $53,700; Snow Steam Pump Works, $46,000; Holly Mfg. Co., $56,500.

CHICAGO, ILL.—Contract for two 40,000,000-gallon pumps for Central Park Ave. and Springfield Ave. pumping stations is stated to have been let to Henry R. Worthington, New York, for total of $178,500.

Council Water Department Committee has appointed sub-committee, Alderman Potter, member, to formulate a plan for the installation of meters throughout Chicago.

CHRISMAN, ILL.—Construction of water-works, to cost about $10,000, is under consideration.

JACKSONVILLE, ILL.—Jacksonville Water-Works Co. is to be incorporated soon. Col. Chas. W. Mackey, Franklin, Pa., is interested.

PEKIN, ILL.—Council, according to reports, is to take up matter of municipal ownership of water-works.

LA CROSSE, WIS.—It is probable that installation of filter plant, to cost $75,000 to $100,000, will be voted on at spring election. Frank Powell is Cy. Engr.

IOWA CITY, IA.—Local reports state that Judge Byington and other west side property-owners are planning construction of private water-works, source of supply to be a deep well.

STANTON, IA.—We are informed that bids for construction of projected new municipal water-works will be taken about June 30. Supply is to be obtained from well, 8,000 ft. distant from city, and estimated cost of system is $5,000. M. L. Fay is Des. Engr.

DULUTH, MINN.—Reported that proposition to establish reservoir in West Duluth and to construct a pumping station and elevated tank at Duluth Heights will be voted on in February.

STILLWATER, MINN.—Movement is under way to have city purchase local water-works.

MARION, S. DAK.—John A. Heeven, Marion, according to reports, is to ask water-works franchise, with intention of enlarging his private plant, so as to supply the town.

LIVINGSTON, MONT.—Council has been considering application of George H. Hill, Helena, Mont., for franchise for water-works and electric lights. Two other applications for franchises have also been made.

NEVADA, MO.—City may vote on $90,000 bond issue for installing water-works.

DE QUEEN, ARK.—We are informed that Council has recently passed ordinance to grant franchise for putting in water-works. Population is 4,000. J. A. Wommack is Mayor.

GRAVETTE, ARK.—According to reports, local concern is to put in water-works here. Wm. Frazier is Mayor.

MORRILLTON, ARK.—Geo. J. Baer, Kansas City, Mo., to whom Council granted water-works franchise, died recently, and it may be necessary to relet the franchise.

BROWNWOOD, TEX.—Mayor McGee is on committee to consider ways and means for increased water supply.

HOUSTON, TEX.—J. M. Frost, Houston, is stated to have purchased Brazas Canal, for $58,500. It is said that he will make several improvements.

SOUR LAKE, TEX.—Local water-works have been sold, and it is reported that new owners will extend the mains and otherwise improve the service.

DENVER, COLO.—A project is reported under way for reclamation of 80,000 acres of land near this city. Project includes building of storage reservoir in the Platte Valley. B. D. Sanborn, Greeley, Colo., may be interested.

Troublesome Land & Live Stock Co. proposes, it is stated, to reclaim 15,000 acres of land in Middle Park by construction of 360,000,000-gallon reservoir and 20 miles of main ditch. F. I. Huntingdon, Hot Sulphur Springs (Post-office, Sulphur Springs, Colo.), made the surveys.

Reports from this city state that a company, promoted by E. R. Stack, and which is to be capitalized at $1,000,000, proposes to construct reservoirs in the San Luis Valley at a cost of several hundred thousand dollars.

HAYDEN, COLO.—Advices from this place state that J. R. Kilpatrick, a property-owner in the neighborhood of Craig, is projecting an irrigation scheme, which, if successful, means the expenditure of fully $200,000, and the reclamation of 100,000 acres of land. It is proposed to store the waste-waters of Elkhead creek, which drains California Park, the Pothole, on the west side of Sand Mountain, and Pilot Knob. E. C. Phillips and F. J. Miller, Longmont, Colo., are also interested.

Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited. Full details regarding the equipment, tools, etc., required for the proposed improvements are specially desired.

GLENWOOD SPRINGS, COLO.—Town will vote Jan. 10 on renewal of water and light franchises of Glenwood Light & Water Co.

PUEBLO, COLO.—Remer & Olson have been awarded contract for constructing 211-acre reservoir in southeast section of this county for Mustang Land & Cattle Co. The dam will be about 5,000 ft. long.

PUYALLUP, WASH.—Council is stated to have purchased source of water supply, with intention of installing gravity system of water-works.

TACOMA, WASH.—We are informed that proposed deep well system of water supply would require two stand pipes, a reservoir, several miles of wooden pipe with specials. Phole air lift system is contemplated. The work, however, has not been ordered, and may not be. Est. cost is $400,000. Wm. Welsh, Comr. Pub. Wks., is official in charge. Frank L. Davis is Cy. Engr.

COLEGROVE, CAL.—Colegrove Water Co. has been incorporated with $30,000 capital stock. Cornelius Cole, Colegrove, and Willoughby Cole, Los Angeles, Cal., are interested.

NATIONAL CITY, CAL.—Mass meeting of citizens of National City and Chula Vista has been held to consider acquisition of municipal water-works and the consolidation of the two cities.

POMONA, CAL.—We are informed that contract was let to Union Machine & Pump Works for about 14,000 ft. standard screw pipe, sizes from ¾-in. to 4-in. diameter, together with 300 garden valves, to be used for parks. Contract price was $2,264. Bids were opened Dec. 5. A. N. Harris is Cy. Clk.

SAN DIEGO, CAL.—Steps are being taken to secure a permanent water supply for this city, and C. S. Alverson, Hydr. Engr., has reported to Council that he has found water-bearing land in El Cajon Valley. It is estimated that necessary plant could be erected for $350,000. Further surveys are to be made to determine location of plant, and cost of installing same, together with a pipe line to the city reservoirs, a distance of about 12 miles.

SAN PEDRO, CAL.—Council has referred matter of relaying water pipes on Mesa St. and of improving the hydrant system to the San Pedro Water Co.

SAN FRANCISCO, CAL.—Sierra Ditch & Water Co. has been incorporated with $5,000,000 capital, and headquarters at San Francisco. T. A. Davidson, L. F. Young and F. L. Fenton are interested.

SAN JOSE, CAL.—D. M. Delmas has filed notice of appropriation of 10,000 ins. of water of Stevens Creek for irrigation purposes.

SANTA BARBARA, CAL.—City has secured nearly all necessary right of way for large water main from new tunnel in Mission Canyon.

SAWTELLE, CAL.—Sawtelle Water Co. has replaced water tank which collapsed recently with temporary tank, and later on may erect cement reservoir or steel stand pipe.

STOCKTON, CAL.—Taison Irrigation Co. has been incorporated with $25,000 capital by J. M. Kile, Stockton, and others.

SUISUN, CAL.—Town Trustees are to consider supplying town of Fairfield with water for fire purposes.

SALT LAKE CITY, UTAH.—In a report to State Land Commissioners, A. F. Doremus, State Engr., states that it is possible to convert Buckhorn flat reservoir or basin into a reservoir having a capacity of about 10,000 acre ft., through the construction of dam about 100 ft. high and 1,000 ft. long o ntop.

SALT LAKE CITY, UTAH.—Plans are stated to have been approved by Directors of Utah Light & Railway Co. for the extension of its water system. $250,000 was appropriated for the steam plant to be erected on the Jordan, in this city, that will eventually generate 10,000 HP.

BOISE CITY, IDAHO.—We are informed that water-works extensions are being planned. Godfrey Sperling is Cy. Engr.

PETERBORO, ONT.—By-law to borrow $20,000 for extension of water mains is to be voted on at January election. T. F. Mathews is Water Comr.

CORNWALL, ONT.—$5,000 may be raised for water system extensions.

THOROLD, ONT.—Question of constructing water-works will be voted on in January.

LINDSAY, ONT.—By-law to provide $20,000 for installing English slow sand system of filtration may be voted on.

RIMOUSKI, QUE.—Plans for water-works here have been approved. J. Gallagher is Mgr.

SEWERAGE.

SPRINGFIELD, MASS.—A. A. Adams, Supt. Streets and Sewers, writes us that it is probable that proposed Springfield St. sewer will be built by employees of the Sewer Department. Mr. Adams will be in charge of the work. Estimated cost, $4,600.

BOSTON, MASS.—Bids are asked by Metropolitan Park Commission, 14 Beacon St., until noon, Dec. 27, for various sizes of pipe drain. Wm. B. de Las Cascas, Chn.

ROCKVILLE, CONN.—City has voted to install a sewage filtration plant. $75,000 was appropriated. Alderman S. Tracy Noble is on special committee. A septic tank system has been recommended.

PUTNAM, CONN.—Special meeting was called for December 20 to take preliminary steps toward installation of a sewer system. $1,250 may be approved for map and specifications.

MERIDEN, CONN.—Sewer Committee recommends to Council that new sewers, aggregating in length 10,875 feet, be built.

BROOKLYN, N. Y.—Bids are asked until 11 a. m., Dec. 30, for reconstructing sewer in 60th St. Martin W. Littleton, Pres. Boro. Brooklyn.

ROCKAWAY BEACH (L. I.), N. Y.—Residents will petition Local Board of Improvements to authorize construction of trunk sewer along Jamaica Bay shore to provide for sewage in this section. Including a disposal plant, the estimated cost is $400,000.

ATLANTIC CITY, N. J.—J. H. Decker, Supt. and Engr. of the Atlantic Sewerage Co., is reported to have stated that portion of city sewer system will be rebuilt at cost of $300,000. Work will be done by the company. Pipe will be furnished by the American Sewer Pipe Co.

HAZELTON, PA.—Two new sewers are contemplated for next year. One in Birch St. would cost $3,500 and in East Tamarack St., $1,700.

PITTSBURG, PA.—Bids are asked until Dec. 27, 10 a. m., for sewers in portions of several streets. William B. Hays, Mayor; E. M. Bigelow, Dir. Dept. Pub. Wks.

GETTYSBURG, PA.—Mason D. Pratt, C. E., Harrisburg, Pa., will prepare plans and specifications for a municipal sewage plant.

SCRANTON, PA.—Henry Jifkins, Cy. Engr., is said to be preparing plans for 7½ miles of brick sewers, for which bids are soon to be asked.

BALTIMORE, MD.—Frank A. Furst will be appointed chairman of Sewerage Improvement Committee. E. Stanley Gary is Chn. of General Municipal Improvement Committee. These committees will consider plans for providing new sewerage and paving facilities. These matters will be decided at the election held next spring. Legislature has passed a bill drawn up by W. Cabell Bruce, Cy. Solicitor, covering all features.

MORGANTOWN, N. C.—W. E. Walton, City, is engineer for proposed sewer system for this place. Survey has been ordered by Board of Aldermen. Election may be held next May to vote on proposition to issue bonds for the work which is estimated will cost $25,000. T. G. Cobb is Mayor.

MARION, S. C.—It was recently voted to issue $25,000 of bonds for building a complete sewer system. W. J. Montgomery, H. C. Graham and P. Y. Bethea are commissioners in charge.

MACON, GA.—I. W. Wilcox is engineer in charge of proposed sewer system. Cost, $40,000.

ST. AUGUSTINE, FLA.—Council is now considering a petition asking for installation of sewer system in this city. It would cost about $75,000.

WOODLAWN, ALA.—Bonds will be issued for carrying on work of constructing a sanitary sewer system. It will cost $15,000.

CONNEAUT, O.—The question of forming a new sewer district and building a sewer direct to the lake is under consideration. This will involve the construction of a new trunk sewer.

ZANESVILLE, O.—J. E. Brown was lowest bidder for building a sewer in Roe and Eighth Sts., at $2,478.

HAMILTON, O.—Bids are asked until Dec. 27, noon, for making house connections to sanitary sewers in Buckeye St. John B. Connaughton, Clk.

SPRINGFIELD, O.—Council has authorized City Auditor Charles C. Bauer to take first legal steps in regard to the new sewer system for this city. City Engineer W. H. Sieverling is working on plans. Mr. Sieverling writes us that nothing has been done yet in connection with sewage disposal plant. As previously announced, plans have been prepared by Snow & Barbour, Engrs., of Boston, for sewage disposal plant and sewer system. These plans have been accepted by Board of Public Service and City Council. Total cost is estimated at $353,206, of which $102,670 would be for disposal plant. Total length of proposed sewers is nearly 120 miles.

MARION, IND.—Bids are asked until Jan. 3 for constructing sanitary sewers in portions of Whites Ave. and Branson St. John O. Willson, City Clk.

MARION, IND.—Bids are asked until 7.30 p. m., Jan. 3, for constructing a sanitary sewer in Seventh St. Also for the construction of a sewer in the alley between Fourth and Fifth Sts. T. E. Petrie, Cy. Engr.

HAMTRAMCK, MICH.—Council has called another special election, to be held Jan. 3, to consider question of issuing $68,000 of bonds for construction of sewer to connect with Detroit sewers at Joseph, Campau, Lumpkin and Conant Aves. This proposition was defeated at an election on Dec. 5. (Post Office, Detroit?)

SAINT CLAIR HEIGHTS, MICH.—Council has under consideration a plan to bond the village for $20,000 with which to install new sewer system. An election may be held.

EAST ST. LOUIS, ILL.—W. J. Croeken, Cy. Engr., writes us that ordinances have been passed providing for several miles of sewers. Bids will not be asked for this work until next spring. Plans are being prepared for an outlet sewer and pumping plant to cost about $750,000.

NEW LONDON, WIS.—It is estimated that cost of projected sewer system will approximate $100,000. The plans cover 16 miles of lateral and main sewers. L. K. Pitz, of Manitowoc, is Engr.

DES MOINES, IA.—Residents north of Forest Ave. are interested in plan to build sewers in this section of the city.

ST. PAUL, MINN.—Appropriation for new main sewers for the coming year will be $25,000. L. W. Rundlett is Cy. Engr.

OMAHA, NEB.—Bids are asked by Board of Public Works until Dec. 30, for constructing an 8-in. pipe sewer, about 600 ft. long, in Dist. No. 301. William Coburn, Secy.

SPRINGFIELD, MO.—Contract for constructing vitrified pipe sewers was let to J. F. Kieser, City, at $7,600. W. N. Schreiber is Cy. Engr.

Bids are asked until 9 a. m., Jan. 3, for the construction of sewers.

JEFFERSON CITY, MO.—J. C. Herring, Cy. Engr., writes us that time for receiving bids has been extended from Dec. 15 to Jan. 4, 4 p. m., for the construction of a sewer in Dist. No. 11. The following is an approximate estimate of the materials and labor required in the construction of the same: 9,626 lin. ft. of 8-in., 3,420 lin. ft. of 14-in. and 450 lin. ft. of 15-in. vitrified sewer pipe; 135 lin. ft. of 14-in. iron pipe (gas pipe); 24 manholes 6 ft. in depth; two Alameda gravity flush-tanks; 10,500 lin. ft. excavation under 6 ft. in depth; 1,850 lin. ft. excavation under 8 ft. in depth; 10 lin. ft. excavation under 10 ft. in depth; 20 lin. ft. excavation under 14 ft. in depth; 90 lin. ft. excavation under 10 ft. in depth; 140 lin. ft. excavation under 16 ft. in depth; 130 cu. yds. of concrete masonry; 100 cu. yds. of riprap; 20 cu. yds. of solid rock excavation; 100 cu. yds. of embankment; 200 lin. ft. of water supply pipe for flusher.

AMARILLO, TEX.—Bids are asked until Jan. 16 for construction of a sewer system. John B. Hawley, Fort Worth, Tex., is engineer in charge; $45,000 of bonds has been voted. S. Lightburne, Mayor.

MARSHALL, TEX.—Sewer system on north side of the city, now under construction, will be extended.

MUSKOGEE, IND. T.—Contract for constructing sewer system was let to the Phelps & Nesbit Construction Co., Dexter, Ia., at $12,250. N. O. Nelson Co., St. Louis, Mo., was awarded the contract for septic tank, at $3,500. Burns & McDonnell, Consult. Engrs., 500 Dwight Bldg., Kansas City, Mo.

DENVER, COLO.—Storm sewers will be installed in subdistricts 8 and 12, Capitol Hill sewer district No. 1, at cost of $24,152. Board of Public Works has authorized the work.

REDONDO, CAL.—It is estimated that it will cost $40,000 to build a sewer system for this city.

LOS GATOS, CAL.—K. H. Erickson, Town Clk., states that it was voted Dec. 5 to issue $4,000 bonds for the construction of an outlet sewer; $20,000 of bonds were voted also for a bridge on Main St.

OCEAN PARK, CAL.—Abbott Kinney has donated land upon which the tanks for the proposed new sewer system for Ocean Park will be located. The sewer will be on a gravity basis and it is estimated that it will cost $16,000. An automatic pump operated by electricity will be installed. Bids will be asked soon.

OXNARD, CAL.—Council appointed a committee, consisting of J. W. Parish and C. J. Elliott, to investigate and report on the sewer systems of other cities. They report that a system for Oxnard will cost about $21,000 and recommend that bonds be issued to cover the cost.

STREETS AND ROADS.

BOSTON, MASS.—Bids are asked by Metropolitan Park Commission, 14 Beacon St., City, until Dec. 27, 12 m., for building to sub-grade, roads in Mystic River Reservation, from High St. to Main St., Medford, Somerville and Arlington. John R. Rablin, Engr.

HARRISVILLE, R. I.—It was voted at a special town meeting to appropriate $3,000 for the repair of highways and bridges for the remainder of the year.

WATERBURY, CONN.—Bids are asked by Board Public Works until Jan. 3 for construction of a section of macadam road. Plans and specifications may be seen at office of R. A. Cairns, Engr., or at office of State Highway Commissioner at Hartford.

ALBANY, N. Y.—Road improvements were authorized by Board of Supervisors with the amount of money appropriated: New Scotland, $2,581; Guilderland, $2,571; Westerlo, $1,290; Knox, $1,128; Rensselaerville, $1,625. Work will be done next year.

BUFFALO, N. Y.—Bids are asked by Department Public Works until Dec. 23 for paving portions of Stanislaus and Curtiss Sts. and repaving portions of Court St. and Elmwood Ave. Francis G. Ward, Comr.

NEW YORK, N. Y.—Bids are asked by John F. Ahearn, Pres. Boro. of Manhattan, until Dec. 29, 3 p. m., for regulating and repaving with asphalt on several streets.

WEST CHESTER, PA.—The total cost of new state road in New Garden and Kennett Townships will be $20,214, under contracts to Theobald Harsh, of Narbeth.

SALISBURY, MD.—City Council is considering street improvements to cost $20,000.

WASHINGTON, D. C.—A bill for the extension and improvement of Massachusetts and Boundary Aves., N. W., has been introduced in the Senate.

BIRMINGHAM, ALA.—Fifth and Highland Aves. will be paved. Julian Kendrick is Cy. Engr.

HUNTSVILLE, ALA.—Maj. Gorman, Supt. of Rds., has recommended to Madison County Commissioners that $100,000 bonds be sold for the purpose of repairing pike roads.

MONTGOMERY, ALA.—Bids are asked by R. S. Williams, Cy. Treas., until Jan. 2 for paving sidewalks on East Jefferson Davis Ave., South Jackson and South Court Sts.

LOUISVILLE, KY.—Estimates of the cost of improving Frankfort Ave. are being made by Board Public Works. Cost, $20,000. Bids will be advertised for soon.

LOUISVILLE, KY.—Board Public Works will ask for bids for paving 18th St., Hickory St. and Burnett Ave. with vitrified brick.

CINCINNATI, O.—Board Public Service, through its chief engineer, was instructed to submit plans to City Council for the improvement of Hawthorne Ave. with macadam, and Price and Matson Aves. with bitulithic macadam.

FINDLAY, O.—A petition is being circulated to pave Tiffin Ave. with vitrified brick. John W. S. Riegle is Cy. Engr.

COLLINWOOD, O.—Council passed an ordinance for the improvement of Collins Ave. by grading, draining and paving with brick.

GLENVILLE, O.—Bids are asked by Board Public Service until Jan. 11 for grading and paving on St. Clair St. M. W. Miles, Secy.

NORWOOD, O.—Bids are asked by Board Public Service until Jan. 7 for grading, curbing and macadamizing on Lloyd Ave. J. A. Stewart, Cy. Engr., 813 Traction Bldg., Cincinnati.

NEWARK, O.—We are informed that bids will be asked for in the spring for paving of Woods Ave. and Stanbarry St. C. H. Wells is Cy. Engr.

CONERSVILLE, O.—Council has authorized the sale of $7,500 worth of bonds to be used for street improvements.

LEBANON, IND.—Bids are asked by Jacob O. Parr, Supt. of Const., until Jan. 7 for constructing Antioch gravel road.

INDIANAPOLIS, IND.—It is reported that bids are asked by Board Park Commissioners until Dec. 23 for construction of Pleasant Run Boulevard, a distance of 4,000 ft. Hiram Brown, Chn.

INDIANAPOLIS, IND.—J. D. Hoss was awarded contract for grading and macadamizing roadway from Michigan to Tenth St. for $4,440. Bids opened by Board Park Commissioners Dec. 9.

GRAND RAPIDS, MICH.—L. W. Anderson, Cy. Engr., writes us that a large amount of estimates for street improvement work are being asked for; $150,000 bonds will probably be issued next week.

GREEN BAY, WIS.—Bids are asked by Commissioner on Streets and Bridges until Dec. 27 for improving St. George St., a distance of 368 ft., by grading and paving a 30-ft. roadway with crushed stone. About 303 cu. yds. crushed stone required and 333 cu. yds. filling.

WATERLOO, IA.—A large amount of paving is projected for next season. Asphalt will probably be used. C. T. Wilson is Cy. Engr.

ST. PAUL, MINN.—Bids were opened Dec. 6 by Board of Aldermen for paving of East Third St. bridge. Van Hafter & Co., of Minneapolis, were the lowest bidders, at $10,989. L. W. Rundlett is Cy. Engr.

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OMAHA, NEB.—A petition has been filed with City Clerk for grading of 13th and J Sts. Andrew Rosewater is Cy. Engr.

ST. LOUIS, MO.—Bids for reconstruction [illegible]k were opened Dec. 10 by Board Public Improvements and the following were the lowest: Lee Ave., Granite Bituminous Paving Co., $20,623; Eleventh St., Granite Bituminous Paving Co., $49,981; Bellefontaine Road, Granite Bituminous Paving Co., $4,192; Pennsylvania Ave., Herman Ruecking, $6,403; Kennerly Ave., Skrainka Construction Co., $16,388; Sullivan Ave., Fruin-Bambrick Construction Co., $6,587, and Pain St., Hill O'Meara Construction Co., $7,103.

SAN ANTONIO, TEX.—Ciy has voted to issue $15,000 in bonds for paving West Commerce St. Address the Mayor for information.

GUTHRIE, OKLA.—An ordinance has been presented to City Council to pave Second St. W. S. Gamble, Acting Cy. Engr.

SEATTLE, WASH.—A resolution has been introduced in City Council declaring the intention to pave [illegible] Ave. and other streets with asphalt. Referred to Street Committee. This resolution covers about 100 blocks and will probably be passed.

Resolution has been passed for the paving with asphalt of Third Ave. and other streets, covering some 20 or 25 blocks.

A resolution has been introduced and referred to Street Committee, to pave about 27 blocks. R. H. Thomson is Cy. Engr.

BELLINGHAM, WASH.—Property owners of Elk St. will petition the Council to pave that thoroughfare with vitrified brick.

TACOMA, WASH.—Streets and Alleys Committee of City Council will probably recommend the formation of three new street improvement districts, involving an estimated expenditure of about $400,000.

TACOMA, WASH.—Specifications have been ordered prepared for paving Jefferson Ave. and South 17th St. with asphalt.

SAN FRANCISCO, CAL.—Board Public Works has rejected the bid of Barber Asphalt Co. for paving H. St.

MILL VALLEY, CAL.—All bids for street work for two lower sections of Miller Ave. were rejected by Board of Trustees as being too high, and the United Construction Co. was awarded contract for work in business portion of town for $5,165. It will be necessary to adopt other plans for balance of work.

MANUFACTURING PLANTS.

BOSTON, MASS.—The Ward-Corby Co., Pittsburg, Pa., is having plans prepared for a four-story bakery in this city.

ROCHESTER, N. Y.—Plans have been filed by Leon Stern, Arch., for a shoe factory to be erected at 60 Commercial St. for Meldola & Coon. Brick, six stories, 65 × 82 ft. Cost, $30,000. A. Friederichs, contractor.

UTICA, N. Y.—T. C. McDermott has the contract for a new dye house for Avalon Knitting Co., City.

TRENTON, N. J.—The Eagle Rubber Cement Co., care of N. F. Loos, 113 East State St., will have plans prepared for a factory at this place.

PITTSBURG, PA.—Chas. G. Zug & Co., 13th and Etna Sts., City, have under consideration the erection of a new plant, including an open-hearth furnace and finishing mill. Site has not yet been selected.

Morrison Photo Supply Mfg. Co., Robt. A. Morrison, Pres., Bessemer Bldg., City, will erect a factory, 40 × 85 ft. S. F. Heckert, Arch., 341 Sixth Ave., City.

Reuben Miller, Jr., and D. W. Dunlevy, formerly of the Crescent Steel Co., have formed the Crescent Forging Co. and will erect general forging plant at Oakmont, Pa. Six-acre site has been purchased. Special product will be drop forgings.

BRIDGEVILLE, PA.—The Jewett Stamping & Enameling Co., R. J. Harvey, Pres., Jewett, O., has practically decided to erect new plant here in spring. Will be in market for considerable new equipment, including power and metal working machinery.

READING, PA.—The Consumers Baking Co. has awarded a contract to Geo. W. Beard & Co., City, for a new bakery. Brick, three stories, 45 × 110 ft.

PHILADELPHIA, PA.—Harrison C. Rea, 1815 Francis St., has invited sub-bids for a factory at 11th and Wood Sts. Brick, six stories, 80 × 100 ft.

F. C. Michaelsen, Land Title Bldg., has been awarded contract for 2-story laundry and boiler house at 27th and Hagen Sts., for Wissahickon Laundry Co.

Herman Miller, Arch., 1420 Chestnut St., has invited bids for a 6-story brick and steel manufacturing building at 12th and Race Sts. for Len Harrison & Co.

SCRANTON, PA.—A. W. S. Collins, Arch., is preparing plans for an addition to printing plant for International Text-Book Co. Brick, four stories, 150 × 200 ft.

SCRANTON, PA.—The Peck Lumber Co. will soon have plans started for an addition to their planing mill.

HARRISBURG, PA.—C. Honard Lloyd, Arch., is preparing plans for a 3-story bakery for Harrisburg Baking Co.

RENOVA, PA.—The Pennsylvania Railroad Co. is having plans prepared for large additions to their machine shops. Brick and steel, one and two stories, cement and concrete foundations.

BALTIMORE, MD.—The Steel Concrete Construction Co. has been awarded contract for a malt house for Gottlieb-Bauerschmidt Brewing Co. Concrete, four stories, 50 × 200 ft.

MANCHESTER, VA.—The Wingo, Ellett & Crump Shoe Co. will erect a large manufacturing plant here. The company's factory is now at Fredericksburg, Va. It is the purpose of the company to construct a plant on the lot adjoining their prospective warehouse, but this will not be done until the warehouse is completed.

CHASE CITY, VA.—The Chase City Mfg. Co. will rebuild its buggy plant, recently burned. The plant will be greatly enlarged and improved.

SHENANDOAH, VA.—The erection of a hosiery mill is contemplated. Secretary Commercial Club can give information.

WOOLWINE, VA.—I. C. De Hart & Co. will erect a new building for cooperage plant.

ROWLESBURG, W. VA.—The Buckhorn Portland Cement Co. will rebuild their factory, which was burned recently.

CORNELIUS, N. C.—A $30,000 knitting mill will be established here by R. J. Stough, P. A. Stough, F. C. Sherrill and J. B. Cornelius.

HILLSBORO, N. C.—Bellevue Mfg. Co. incorporated recently, will establish a knitting mill for producing children's and misses' hosiery. Sheppard Strudwick is Pres.

CHARLOTTE, N. C.—The Cochrane Show Case Co. will double the capacity of its plant. J. E. Cochrane is Pres.

CHARLOTTE, N. C.—The Southern Cotton Oil Co. will establish a mattress factory here. T. H. Benton, of Scranton, Pa., will be the superintendent. The plant will begin operations about Jan. 1.

FILBERT, S. C.—C. F. James and J. B. Neil will probably establish a knitting mill here. Cost, $10,000.

ORANGEBURG, S. C.—The Orangeburg Ice & Fuel Co. has been chartered with $12,000 capital. P. M. Sn[illegible], R. H. Jennings and others of Orangeburg, are incorporators.

ORANGEBURG, S. C.—The Crystal Ice Co., of Orangeburg, has been chartered with a capital of $25,000. W. C. W[illegible] is Pres.

WILLISTON, S. C.—E. C. Smith, of Edgefield, will erect a hosiery mill at Williston, to have an initial equipment of [illegible] to 50 machines. Probably water power will be used.

ATLANTA, GA.—The Cable Piano Co., of Chicago, will, it is stated, erect a $600,000 piano and organ factory in this city.

ATLANTA, GA.—The Atlanta Metal & Bottle Co. has filed a petition asking amendments to its charter permitting the issuance of $100,000 preferred stock and giving it powers to enlarge the character of its business.

ATLANTA, GA.—The Crystal Ice Co., capital $225,000, has applied for a charter to do an ice and cold storage business. The petitioners are: G. N. Henson, of Chattanooga, Tenn., and Thomas Egleston, Daniel B. Harris, H. M. McCullough and W. G. Raoul, of Atlanta.

ATHENS, GA.—Klein & Martin will erect a carriage and wagon factory here.

MONTGOMERY, ALA.—The J. R. Buchanan Candy Co., capital $10,000, has been chartered to manufacture candies, crackers, etc. Incorporators: W. L. Howard, L. H. Buchanan and J. P. Buchanan.

HUNTSVILLE, ALA.—A $15,000 canning factory will be located here. F. J. Thompson, of Thompson Land & Investment Co., can give information.

BESSEMER, ALA.—Krebs Mfg. Co. will increase the capacity of their plant. An additional building is being erected.

ANNISTON, ALA.—Will Darden and associates will locate a factory here to manufacture incubators.

ABERDEEN, MISS.—Brick works will be established here by G. C. Pain and B. C. Welch.

NEW ALBANY, MISS.—The Union County Brick & Tiling Co. has been organized here and capitalized at $25,000, with J. T. Baker, Pres. A site has been purchased and work on plant will begin at once.

JACKSON, MISS.—The McDonnell Foundry & Machine Co., capital $20,000, has been chartered to operate a foundry and blast furnaces. Incorporators: George, Frank and Charles McDonnell.

INDIANOLA, MISS.—The "Pink Sheet Daily Bulletin" states that the Bone Lumber Co., W. T. Pitts, Secy., may need planing mill machinery and machines for making sash, doors and laths and will want prices on same.

GULFPORT, MISS.—The Vossburg Lithia Springs Co., capital $250,000, will establish bottling works here.

NEW ORLEANS, LA.—John Bannon, of City of Mexico, Mex., will probably locate a printing ink factory in this city. Address Secretary Progressive Union for information.

FLORIEN, LA.—The N. S. Ayres Lumber Co. will erect a saw mill here with a capacity of 40,000 ft. daily.

NEW ORLEANS, LA.—The Liquid Carbonic Co., of Chicago, capital $3,500,000, will, in the near future, erect a plant in New Orleans at a cost of $50,000, to supply the local and adjacent trade with liquid carbonic acid gas, used for soda, etc. F. P. Goebel is local representative of company.

KNOXVILLE, TENN.—The Knoxville Pottery Co., capital $20,000, has been incorporated by R. H. Cate, W. B. Caldwell, Wm. Weaver, C. A. Nickerson, J. E. Cassidy and others. They have purchased the ground near Oakwood and will begin work erecting their plant at once.

CHATTANOOGA, TENN.—Standard Mfg. Co. will establish a shirt factory here to employ about 800 operators. Machinery has been purchased.

JELLICO, TENN.—The Jellico Skirt Mfg. Co. will change the location of its plant and increase its capacity.

COLUMBIA, TENN.—The feed mill and elevator of City Grain & Feed Co. was destroyed by fire. Loss, $73,000.

BELFAST, TENN.—L. A. Brown, of Detroit, Mich.; John B. Gambill, of Cornersville, and associates will erect a canning factory here at a cost of $5,500.

JACKSON, TENN.—A fertilizer plant will be erected in this city by E. L. Gregory and J. R. Ruhm, of Mt. Pleasant, Tenn., at an early date. They will expend about $10,000 on the plant at the start and will gradually increase it until it becomes a $75,000 factory.

KNOXVILLE, TENN.—Pittsburg parties will erect a $150,000 powder manufactory near Knoxville. Options have been taken on a site on the Louisville & Nashville road.

AKRON, O.—The Williams Electric Machine Co., H. A. Williams, Gen. Mgr., 514 Everett Bldg., City, expect to take bids in April on erecting new manufacturing plant. Steel frame and brick, one story, 80 × 200 ft. and two stories, 80 × 50 ft. Power equipment and machinery will be required.

PORTSMOUTH, O.—The Southern Ohio Brick & Tile Co. has incorporated with capital of $75,000. The company will erect a brick plant in the eastern part of county. Incorporators: Marvin Clark, A. T. Holcomb, E. H. Clare, M. H. Shummay and T. J. Morgan.

STEUBENVILLE, O.—La Belle Iron Works, W. D. Crawford, Gen. Mgr., will erect plate mill addition to present works. Corrugated iron and steel, 150 × 550 ft. General contract was awarded to Riter Conley Mfg. Co., Pittsburg, Pa.

SALEM, IND.—The Stout Furniture Co. has incorporated with a capital of $125,000. Object is to establish a plant and manufacture furniture. A. L. Stout, E. H. Bristol, E. L. Duckwall and R. C. Morris, incorporators.

KALAMAZOO, MICH.—The Central Illinois Envelope Co. let contract to A. J. White for building of two factory buildings for $50,000. Work on the first building will start at once.

SPARKS, OKLA.—The Sparks Cotton Gin Co. has been chartered with capital stock of $4,000. Incorporators: F. J. Phillups, of Greenville Tex.; J. W. Aydelotte, C. M. Cade and P. A. Norris, of Shawnee, and H. S. Emerson and P. S. Smith, of Sparks.

LOS ANGELES, CAL.—Bids are asked by Board of Supervisors until Jan. 9 to furnish and install, complete, in new county hospital building, Los Angeles, a laundry plant. C. G. Keyes, County Clk.

READERS' WANTS

This Department contains special requests, and detailed items, from persons in the market for supplies, and from others asking for the names and addresses of firms manufacturing certain tools, machinery and supplies required for work in which they are interested. ENGINEERING NEWS will be glad to furnish at once, free of cost, names and addresses of firms making the machinery or material desired, after which the item will appear in this column, **UNLESS OTHERWISE REQUESTED**, which request will be honored absolutely. The information **in all cases will be sent to our advertisers** handling the material wanted, or to other firms should it be out of the line of our advertisers. Every day we are receiving such requests with the understanding that it must not appear in the paper.

DERRICK TIMBERS.—Sardinia, N. Y.—P. H. Cox would like to hear from firms handling derrick timbers of about 14 × 14-in. 65-ft. mast, etc.

FRICTIONLESS STEEL.—Grand Rapids, Mich.—The Fritz & Goeldel Mfg. Co. writes us for the names of firms manufacturing frictionless steel.

SAND WASHING MACHINERY.—Vera Cruz, Mex.—H. B. Reagan, Spartado 20, Cordoba, writes for information regarding devices for washing sand.

INCLINE RAILROADS.—McConnellsburg, Pa.—F. M. Taylor, Surveyor and Engr., desires to communicate with firms building and equipping incline plane railroads or roads by which cars are propelled by cables.

WATER-WORKS SUPPLIES.—Paris, France.—P. Vaudrey, Engr.-Dir., Le Controle Industrial, 79 Boulevard Magenta, Tenth Dist., desires catalogues and other printed matter pertaining to water-works supplies.

PETALUMA, CAL.—W. F. Farrell will erect a carriage factory at Prospect and Main Sts.

RENO, NEV.—Since the consolidation of Reno and Ritter Brewing Companies on Dec. 1 extensive plans have been perfected for the enlargement of the capacity of the business. The present plan for enlargement consists of a new brick storage plant adjoining main building, four stories, 30 × 110 ft.

MONTREAL, QUE.—The Canada Car Co., recently incorporated here by Pressed Steel Car Co. interests, is erecting large plant near this city. Foundations are being erected and contracts for structural steel have been placed and De Lano Osborn Engineering Co. engaged to inspect and report upon it. It is intended to have plant completed early next summer in time to begin the manufacture of cars for new Trans-Continental Railway.

HAMILTON, ONT.—It is announced that American Horseshoe Co., of Easton, Pa., has acquired seven acres of ground in the vicinity of smelting works at Hamilton upon which it will locate a branch manufactory. This establishment, it is said, will give employment to 100 hands at the beginning, and erect a building 300 ft. in length.

MISCELLANEOUS CONTRACTS.

BOX LOCKERS.—San Francisco, Cal.—Bids are asked until Jan. 6 for furnishing 5,000 box lockers at San Francisco. Major C. A. Devol, Q. M., U. S. A.

DREDGING.—Norfolk, Va.—Bids are asked until Jan. 9 by E. Eveleth Winslow, Engrs., for dredging Norfolk Harbor. (Advertised, Engineering News.)

TUNNEL.—Sacramento, Cal.—City Trustees are being urged to at once construct a tunnel under the railroad crossing at 12th St. Est. cost is about $25,000.

TELEPHONE FRANCHISE.—Santa Monica, Cal.—J. G. Hemingway, Cy. Clk., is asking bids until Jan. 3 for purchase of telephone and telegraph franchise in this city.

TUNNEL.—Boston, Mass.—Bids were opened by Boston Transit Commission, Dec. 15, for construction of Sec. 3 of Washington St. tunnel. Jones & Meehan, 1 Beacon St., Boston, at $128,103, were lowest bidders.

DRAINAGE DITCH.—Red Lake Falls, Minn.—James K. Wood, County Surv., is making surveys for proposed eight-mile drainage ditch, to connect Mud Lake and Thief Lake, to be built at an est. cost of $15,000.

TELEPHONE SWITCHBOARD.—Ogden, Utah.—Local advices state that the Rocky Mountain Bell Telephone Co.'s exchange in this city will be enlarged and a new switchboard will be installed at a cost of $35,000.

MANILA ROPE.—New York, N. Y.—Bids are asked by Commissioner of Street Cleaning, 13 Park Row, until Dec. 29 for furnishing and delivering 150 coils of pure manila rope of five different measures of circumference.

ELEVATOR AND LIFT.—Washington, D. C.—Bids are asked by James Knox Taylor, Supervising Arch., until Jan. 7 for installation of electric passenger elevator and hydraulic elevator in U. S. Post Office, Custom House, etc., at Jacksonville, Fla.

NEW YORK STATE CANAL IMPROVEMENT.—Albany, N. Y.—The itemized bids received Dec. 15, 16 and 17 by Charles S. Boyd, Supt. Pub. Wks., on the first six contracts for improving New York State canals are given under Contract Prices.

DRY DOCK.—Vancouver, B. C.—N. Thompson is reported to have closed contract with Swan & Hunter, New Castle, England, for construction of 510 ft. long steel dry dock for this place. The first section, work on which is now under way, is to be 276 ft. long.

PORTLAND CEMENT.—Roswell, N. Mex.—Bids are asked by the Chief Engineer, Reclamation Service, U. S. Geological Survey, Washington, D. C., until Jan. 10 for furnishing 2,000 bbls., more or less, of Portland cement, to be delivered at Roswell, N. Mex. (Advertised, Engineering News.)

DREDGING AND DOCKING.—Chicago, Ill.—The date for the opening of bids by the Trustees, Sanitary District of Chicago, for dredging Main Chicago River and South Branch of Chicago River, and for docking portion of river front has been changed from Feb. 5 to Feb. 15. (Advertised, Engineering News.)

CANAL.—Windsor, Ont.—It is expected that the Canadian Parliament of 1906 will take final action favorable to beginning work on proposed canal from Georgian Bay to the St. Lawrence River, through Lake Nipissing and the Ottawa River, for the exploration of which $250,000 has already been made available.

DREDGING.—Boston, Mass.—Following bids were received by State Harbor and Land Board, Frederick N. Wales, Clk., Dec. 15 for about 10,000 cu. yds. dredging and depositing material at Harwichport: John H. Gerrish, 247 Atlantic Ave., Boston, $3.950; George H. Cavanagh, 166 Devonshire St., Boston, $4,800.

MACHINERY.—Washington, D. C.—Bids are asked by Bureau Supplies and Accounts until Jan. 24 for furnishing at Navy Yards, Mare Island, Cal., and Puget Sound, Wash., a quantity of trucks, concrete mixer, hoisting engine, winch, air compressor, knife grinding machine, and wood trimmer. H. T. B. Harris, Paym.-Gen., U. S. N.

MOTORS, WIRE, ETC.—Washington, D. C.—Bids are asked by Bureau Supplies and Accounts until Jan. 17 for furnishing naval supplies at Navy Yards, Mare Island, Cal., and Puget Sound, Wash. Among articles desired are motors, electric wire, copper, iron, brass, drawing instruments, etc. H. T. B. Harris, Paym.-Gen., U. S. N.

BOILER.—Central Islip, N. Y.—Bids are asked until Dec. 28, 3 p. m., for one 100-HP. boiler at Manhattan State Hospital at this place. G. L. Heins, State Arch. T. E. McGarr, Secy. State Comn. in Lunacy, Albany, N. Y. S. A. Wheeler, Purchasing Steward, 309 Broadway, New York, may be addressed. (Advertised, Engineering News.)

STEEL, ROPE, EMERY WHEELS, ETC.—Washington, D. C.—Bids are asked by Bureau Supplies and Accounts until Dec. 27 for furnishing naval supplies at New York Navy Yard. Among articles desired are panel boards, cable, generating sets, Norton emery wheels, wire rope, sewer pipe, steel, etc. H. T. B. Harris, Paym.-Gen., U. S. N.

PIER.—Asbury Park, N. J.—A company which is about to be organized under the name of Asbury Park Pier Co. has been granted a franchise for the construction of 800 ft. long steel amusement pier. The pier is to have a music pavilion and a theater, together with a large sun parlor. Jesse W. Starr, Camden, N. J., is promoter of the enterprise.

FIRE ALARM APPARATUS, ETC.—New York, N. Y.—Bids are asked by Nicholas J. Hayes, Fire Comr., until Dec. 27 for furnishing all the labor and materials required for installing additional fire alarm telegraph apparatus at the headquarters, 365 Jay St., Brooklyn; also for furnishing all the labor and materials required to alter and repair La France fire engine, registered No. 250.

WARSHIPS.—Washington, D. C.—Bids were opened by the Navy Department, Dec. 15, for the construction of the battleship "New Hampshire" and the armored cruisers "Montana" and "North Carolina." Newport News Shipbuilding & Dry Dock Co., Newport News, Va., at $3,575,000 each was low bidder for the cruisers and New York Shipbuilding Co., Camden, N. J., at $3,748,000 was low bidder for the battleship.

DOCK EXTENSION.—Duluth, Minn.—Duluth & Iron Range R. R. Co. has awarded contract for reconstruction and extension of ore dock No. 3 at Two Harbors to the Barnett & Record Co., Minneapolis, Minn. Contract calls for an outlay of about $350,000. Barnett & Record Co. was also awarded recently contract for extension of ore dock No. 3 on the Missabe system in Duluth, as was stated in Engineering News of Dec. 1.

TUNNEL, ETC.—Pittsburg, Pa.—Monongahela Tunnel Co. has been organized and will apply for a charter soon. Company proposes to drive a tunnel about 20 ft. wide and 18 ft. high into Mount Washington Hill for a distance of 408 ft, and then to sink a shaft and place elevators therein for transporting passengers and freight to the top of the hill. E. H. Jennings, Pres. Columbia National Bank, and A. C. Thompson, of the Colonial Trust Co., are interested.

ELECTRICAL TOWING DEVICES.—New York, N. Y.—Sub-Committee of the Commission appointed to investigate towing systems applicable to the canals of the State of New York will hold a meeting at the Murray Hill Hotel, New York City, Jan. 5, at 11 a. m., at which time the committee will receive plans and systems or devices, with their claims, for electrical towing. Persons desiring to be heard at that time should notify the Chairman, Elmer L. Corthell, 1 Nassau St., New York. Advertisement of above hearing appears in Engineering News.

MACHINE TOOLS.—Washington, D. C.—Bids are asked by Bureau Supplies and Accounts, until Jan. 17 for furnishing at Navy Yards, Portsmouth, N. H., Boston, Mass., New York, N. Y., Norfolk, Va., Pensacola, Fla., the naval station, New Orleans, La., and the Naval Academy, Annapolis, Md., a quantity of machine tools etc., comprising a bolt threading machine, drill presses, power hack saw, down-draft forges, lathes, slotting machine, metal planer, grinders, crank shaper, milling machine, saw bench, pipe flanging machine, molding machine, power press, power launch, motor drive outfits for various machine tools, steam hammer, double punch and shear, and combination bench and slitting shear, etc. H. T. B. Harris, Paym.-Gen. U. S. N.

DAM AND LOCK.—Boston, Mass.—Following bids were received by Charles River Basin Commission, Dec. 20, for constructing the Charles River dam and lock; the itemized bids will be given under Contract Prices in our issue of Dec. 27: Charles F. Taylor & Co., East Boston, Mass., $761,900; Holbrook, Cabot & Rollins Corp., Boston, Mass., $801,607; Nawn & Brock, Boston, Mass., $828,945; Lawler Bros., Charlestown, Mass., $844,570; Manufacturers' Contracting Co., Wilmington, Del., $860.515; Coleman Bros., Everett, Mass., $869.285; Metropolitan Contracting Co., Boston, Mass., $873,950; Ruggles & Perkins, Boston, Mass., $881.705; Patrick McGovern, Boston, Mass., $922,230; Jones & Meehan, Boston, Mass., $1.028,080; Dravo Contracting Co., Pittsburg, Pa., $1,129,530.

U. S. POSSESSIONS AND CUBA.

CABLE.—Panama.—A bill has been introduced in the U. S. House of Representatives providing for the construction and operation of cable to connect the canal zone on the Isthmus of Panama with the United States. The total cost is not to exceed $2,000,000.

DREDGING, BUILDINGS.—Hawaii.—Among the estimates for appropriations submitted by Governor Carter to the U. S. Government, are items calling for $250,000 for dredging Honolulu Harbor, $1,000,000 for a federal building for Honolulu and $100,000 for a Federal building at Hilo.

RAILWAY.—Alaska.—Advices from Seward, Alaska, state that the construction of the Alaska Central Railway is progressing finely. Track is now being laid on section miles, 15 to 25, and grading and bridge building is being done on miles 25 to 35. Preparations are now being made to build an additional 150 miles, the track to be laid next season, to Kuick Arms and the Matnooska coal fields. A. W. Swanitz, Seward, is Ch. Engr.

CONTRACT PRICES.

[Where (*) precedes items under Contract Prices the work was advertised in Engineering News.]

*NEW YORK STATE CANAL IMPROVEMENT.—Albany, N. Y.—The following bids were received by Charles S. Boyd, Supt. Pub. Wks., Dec. 17, for work under Contract No. 5, which calls for construction of Erie Canal and its appurtenances, from Sta. 5074, near Mosquito Point Bridge, to Sta. 5373, east of village of Savannah; (1) Walter H. Gahagan, 189 Montague St., Brooklyn, N. Y.; (2) John Dunfee & Co., Syracuse, N. Y.; (3) Atlantic, Gulf & Pacific Co., New York; (4) Henry P. Burgard, Buffalo, N. Y.; (5) Lindon W. Bates, New York; (6) State Engineer's estimate:

Quantities.	Items.	(1)	(2)	(3)	(4)	(5)	(6)
1	Clearing	$3,500.00	$3,600.00	$3,500.00	$3,500.00	$3,290.00	$3,500.00
2,560,000	Cu. yds. all excavation	0.12½	0.15	0.16	0.15	0.12½	0.13½
29,000	" " forming embankment	0.11	0.10	0.15	0.10	0.09½	0.10
1,900	" " lining	1.30	1.50	1.50	1.50	1.40	1.50
60,000	Ft. B. M. square-sawed yellow pine	38.00	38.00	40.00	40.00	38.00	40.00
4,000	Lin. ft. round timber	0.13	0.14	0.18	0.15	0.15	0.15
210,000	Ft. B. M. square-sawed hemlock	33.00	28.00	30.00	30.00	29.00	30.00
1,000	Foundation piles, 12 ft. each	3.50	2.50	3.60	3.00	2.85	3.00
200	" " 25 ft. "	6.00	5.00	6.25	6.25	5.90	6.25
15	Mooring " 30 ft. "	7.50	7.00	7.50	7.50	7.00	7.50
300	Docking " 30 ft. "	7.50	7.00	7.50	7.50	7.00	7.50
190,000	Ft. B. M. sheet piling	35.00	30.00	30.00	30.00	29.00	30.00
4,100	Lbs. steel and iron fastenings	0.05	0.05	0.05	0.05	0.05	0.05
3,100	Cu. yds. 2d-class concrete	5.50	5.00	6.00	6.00	5.65	6.00
110	" " 3d-class concrete	5.50	5.00	5.50	5.50	5.25	5.50
10	" " 1st-class masonry coping	24.00	25.00	40.00	24.00	22.50	24.00
7,800	" " wash wall	2.30	2.00	3.00	2.50	2.35	2.50
1,300	" " stone filling in cribs	1.60	1.50	2.00	1.50	1.40	1.50
1,300	" " 2d-class rip-rap	2.50	2.50	2.50	2.50	2.35	2.50
2,200	Lin. ft. wooden fencing	0.20	0.20	0.20	0.20	0.20	0.20
Total		$394,412	$451,220	$492,132	$459,652	$381,987	$421,252

*NEW YORK STATE CANAL IMPROVEMENT.—Albany, N. Y.—For work under Contract No. 4 bids were received by Charles S. Boyd, Supt. Pub. Wks., Dec. 16, as follows, the contract covering the construction of Erie canal and its appurtenances from foot of Lock 25 to deep water, east end of Oneida Lake at Sylvan Beach; (1) Henry P. Burgard, Prudential Bldg., Buffalo, N. Y.; (2) Atlantic, Gulf & Pacific Co., Park Row Bldg., New York; (3) John Dunfee & Co., Syracuse, N. Y.; (4) Lindon W. Bates, New York; (5) State Engineer's estimate:

Bids Received at Albany, N. Y., December 16, 1904, for Construction of Erie Canal and its Appurtenances.

Quantities.	Items.	(1)	(2)	(3)	(4)	(5)
1	Clearing	$1,050.00	$1,000.00	$1,200.00	$1,000.00	$1,050.00
7,800	Cu. yds. grubbing	.25	.25	.24	.23½	.25
2,280,000	" all excavation	.15⅛	.17¼	.16	.14	.16¼
150,000	" forming embankment	.12	.12	.12	.08¼	.10
7,000	" lining	1.50	1.50	1.50	1.20	1.25
855,000	Ft. B. M. yellow pine	36.00	45.00	40.00	35.80	38.00
10,000	" white oak	40.00	45.00	50.00	42.50	45.00
535,000	Lin. ft. round timber	.12	.14	.12¼	.11¼	.12
680,000	Ft. B M. square sawed hemlock	25.00	30.00	30.00	26.40	28.00
5,500	Foundation piles, 12 ft. long, each	3.00	3.00	2.50	2.85	3.00
600	" " 20 "	5.00	5.00	5.00	4.70	5.00
90	" " 35 "	10.00	10.00	10.00	9.40	10.00
14	Mooring " 30 "	6.00	7.50	8.00	7.00	7.50
200	Docking " 30 "	6.00	7.50	8.00	7.00	7.50
1,005,000	Ft. B. M. sheet piling	28.00	28.00	30.00	26.40	28.00
70,000	Lbs. steel and iron fastenings	.05	.05	.05¼	.04¾	.05
13,000	Cu. yds. 2d class concrete	5.50	5.50	5.25	5.20	5.50
10	" 1st class masonry coping	24.00	28.00	25.00	22.50	24.00
33,000	" wash wall	2.00	2.63	2.00	2.12	2.25
4,800	Sq. yds. stone paving	1.00	1.20	1.20	.95	1.00
51,000	Cu. yds. stone filling	1.50	1.80	1.50	1.40	1.50
1,100	" 2d class rip rap	2.25	2.25	2.50	2.12	2.25
1,800	Lin. ft. fencing	.20	.20	.19	.18¾	.20
15,200	" tracklaying and surfacing	.15	.15	.18	.14	.15
3,800	New cross ties, each	.60	.55	.65	.56½	.60
1	Raising grade and maintaining traffic, N. Y. O. & W. R.R. bridge	7,000.00	14,000.00	12,000.00	11,600.00	13,500.00
1	Maintaining traffic at Sylvan Beach Bridge	4,000.00	6,000.00	6,000.00	6,000.00	7,000.00
Totals		$766,039	$877,175	$798,517	$726,815	$812,560

*NEW YORK STATE CANAL IMPROVEMENT.—Albany, N. Y.—Bids were received by Charles S. Boyd, Supt. Pub. Wks., as follows, Dec. 16, for work under Contract No. 3, which calls for the excavation of the Champlain Canal and protection of its banks; construction of Fort Miller Lock and its approaches, the guard gate and its approaches, bridge abutments and foundations and other work; (1) Mossier De Graff Construction Co., Buffalo, N. Y.; (2) Lindon W. Bates, New York; (3) Buckley Construction Co., Schenectady, N. Y.; (4) Brodhead Contracting Co., Wilkesbarre, Pa.; (5) Eastern Contracting Co., Pittsburg, Pa.; (6) Sundstrom & Stratton, 143 Liberty St., New York; (7) T. A. Gillespie Co.; (8) John Dunfee & Co.; (9) MacArthur Bros., Chicago, Ill.; (10) State Engineer's estimate; in addition to the above the Church Construction Co., 126 Liberty St., New York, and the United Engineering & Contracting Co., 13 Park Row, New York, submitted lump bids of $698,500 and $699,000, respectively:

Quantities.	Items.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Clearing	$125.00	$117.50	$125.00	$125.00	$135.00	$125.00	$125.00	$150.00	$150.00	$125.00
6,500	Cu. yds. grubbing	0.25	0.23½	0.25	0.30	0.30	0.25	0.24	0.25	0.25	0.25
849,000	" " all excavation	0.49	0.48	0.50	0.52½	0.50	0.41	0.47	0.44½	0.48	0.50
113,000	" " forming embankment	0.12	0.11¼	0.12	0.14	0.12	0.12	0.12	0.11	0.14	0.12
3,300	" " lining	1.25	1.18	1.25	1.25	1.35	1.25	1.25	1.50	1.50	1.25
900	" " puddle	1.25	1.18	1.25	1.25	1.35	1.25	1.25	1.50	1.50	1.25
84,000	Ft. B. M. yellow pine timber and plank	35.00	33.00	35.00	40.00	40.00	32.00	35.00	40.00	42.00	35.00
37,400	" " yellow pine timber in stop logs	75.00	70.00	75.00	80.00	85.00	70.00	65.00	70.00	90.00	75.00
2,000	" " white oak timber in miter sills	100.00	94.00	100.00	100.00	90.00	100.00	100.00	120.00	100.00	100.00
11,000	" " hemlock timber and plank	30.00	29.00	30.00	35.00	35.00	27.50	30.00	30.00	36.00	30.00
30,000	Lin. ft. round timber in cribs	0.12	0.11¼	0.12	0.14	0.15	0.12	0.10	0.12½	0.14	0.12
8	Foundation piles, 15 ft. long each	3.75	3.50	3.75	4.50	4.00	3.75	4.25	4.50	4.50	3.75
4	" " 20 " " "	5.00	4.75	5.00	5.00	5.00	5.00	5.50	6.00	6.00	5.00
4	" " 25 " " "	6.25	5.75	6.25	6.00	6.00	6.25	6.75	7.50	7.50	6.25
52	Mooring " 15 " " "	5.25	5.00	5.25	5.25	7.00	5.25	5.75	6.30	6.25	5.25
12	" " 25 " " "	7.75	7.25	7.75	7.75	8.00	7.75	8.25	9.20	9.25	7.75
5,300	Cu. yds. 1st-class concrete	7.00	7.20	7.00	7.30	6.00	6.65	5.80	7.00	6.80	7.50
28,000	" " 2d- " "	6.00	6.15	6.00	6.26	5.50	6.15	4.70	6.00	5.80	6.40
650	" " 3d- " "	5.40	5.10	5.40	5.80	5.00	5.23	4.60	5.00	5.40	5.40
10	" " 1st-class masonry	20.00	18.80	20.00	20.00	20.00	20.00	20.00	24.00	24.00	20.00
28,500	" " wash wall, including coping	1.50	1.45	1.80	1.68	2.00	1.50	1.50	1.80	1.80	1.50
3,200	" " stone filling in cribs	1.50	1.40	1.50	1.50	2.00	1.25	1.50	1.50	1.80	1.50
1,600	" " 1st-class riprap	3.50	3.25	3.50	3.50	4.00	3.00	3.50	4.00	4.20	3.50
129,000	Lbs. iron castings	0.04	0.03¾	0.04	0.03½	0.04	0.04	0.04	0.04	0.04	0.04
23,000	" steel castings	0.06	0.05¼	0.06	0.07	0.06	0.06	0.06	0.06	0.07	0.07
24,000	" structural steel	0.06	0.05¼	0.06	0.06½	0.06	0.06	0.06	0.06	0.07	0.06
7,300	Lin. ft. wooden fencing	0.20	0.18	0.20	0.20	0.20	0.20	0.15	0.21	0.24	0.20
2	Upper gates for lock, complete in place each	1,250.00	1,175.00	1,250.00	1,481.00	1,250.00	1,250.00	1,150.00	1,300.00	1,400.00	1,250.00
2	Lower gates for lock, complete in place "	2,300.00	2,160.00	2,300.00	2,500.00	2,300.00	2,300.00	2,150.00	2,300.00	2,500.00	2,300.00
2	Gates for guard gate, complete in place "	6,000.00	5,640.00	6,000.00	6,250.00	6,000.00	6,000.00	6,000.00	6,000.00	6,750.00	6,000.00
1	48-in. sluice valve for guard gate, complete in place	750.00	705.00	750.00	889.00	800.00	750.00	650.00	700.00	900.00	750.00
1	Removing and resetting old bridge superstructure	100.00	94.00	100.00	100.00	150.00	100.00	100.00	120.00	120.00	100.00
Total		$738,236	$728,993	$755,276	$788,094	$746,495	$670,497	$676,012	$709,759	$742,123	$700,573

MEXICO.

LIGHT AND POWER PLANTS.

AUTLAN, JALISCO.—M. D. Watson and J. R. Bickerdike have applied to the government of the state of Jalisco for a concession to utilize the waters of the Ayuquila River for a distance of about 30 miles. They propose to build an electric power plant on the river for the purpose of operating an electric railway.

CHAPALA, JALISCO.—Carlos Navarro Mora, city of Guadalajara, has been granted a concession by the state government for the establishment of an electric light plant at the town of Chapala, and also for a corn flour mill, to be operated by electricity. Work on the two plants must be commenced within six months, and exemption from all state taxes is granted for ten years. It is intended to have the plant in operation within a year, and to light both streets and houses.

GUADALAJARA.—Application has been made to the government of the state of Jalisco by Ferdinand Sustersic, Mgr. Amparo Mining Co., for a concession to use the waters of the Magistral River for power purposes. It is stated that the proposed power is to be used for operating reduction works at the mines of his company. It is understood that the application will be granted with the usual considerations.

BUILDINGS.

CITY OF MEXICO.—It is stated that Arthur E. Stilwell, of Kansas City, Mo., Pres. Kansas City, Mexico & Orient R. R., will erect a large office building in this city. Part of the building will be occupied by the United States & Mexican Trust Co.

CITY OF MEXICO.—Contract for furnishing material and building the foundation and steel structure for the National Theater to be erected in this city, has been let to Milliken Bros., 11 Broadway, New York. The foundation will be constructed of concrete, and concrete arches will be used in the floors. The work will be commenced in about two months, and the contract will be completed and the building ready for the stone men within one year thereafter. The cost of the foundation and the erection of the steel structure will amount to about $1,500,000 Mexican money.

WATER-WORKS.

CHIHUAHUA.—Work has begun of sinking a well on the Chubiscar River, for the purpose of increasing the water supply of the city, and a supply of 1,000,000 gallons per day is expected to be derived from this source. A pumping plant will be installed if the experiment is a success. This is not intended to supersede the construction of the large dam, further up the river, which has been referred to in our columns.

DURANGO.—It is stated that Louis G. Avila, of Durango, is preparing to establish a large irrigation plant on his hacienda near the city. He will irrigate a large tract of land.

GUADALAJARA.—Advices from this city state that Manuel Cuesta Gallardo, of Guadalajara, has already spent about $400,000 in making necessary surveys and preliminary arrangements for utilizing the waters of Lake Chapala for irrigating purposes. It is said that the project, when carried out, will be the largest irrigation enterprise in Mexico, and will represent an investment of several million dollars. The waters of the lake at present find their way to the Pacific Ocean through the Santiago River. The plans contemplate the impounding of the water, and to decrease the surface area of the lake as much as possible by heavy filling, thereby lessening the evaporation losses.

SAN CRISTOBAL, CHIAPAS.—Application has been made to the Mexican government by native capitalists for a concession to use the waters of the Chivata River, in the state of Chiapas, for irrigation purposes. A large system of irrigation will be established by them.

MANUFACTURING PLANTS.

CHIHUAHUA.—Juan A. Creel, Mgr. of the Banco Minero, city of Chihuahua, associated with E. Avila, of Monterey, is to establish a large broom factory, probably at Santa Rosalia, Chihuahua. Machinery will be secured in the United States.

CHIHUAHUA.—A factory is to be erected in Chihuahua for the manufacture of pianos, organs, etc. Edward Linss will be manager of the works.

DURANGO.—The Cia. Harinera de Durango is preparing to build a new flour mill at Durango, with a daily capacity of 300 barrels. The new mill, when completed, will consume about 1,500 cars of wheat annually, and nearly all of this grain will be imported from the United States.

MATEHUALA, SAN LUIS POTOSI.—The Compania Destiladora de Aguarras is erecting a turpentine distilling plant at Galeana. The general offices of the company are at Matehuala. The company controls 300,000 pine trees in the vicinity of Galeana. A. L. Nethery is Gen. Mgr.

QUERETARO.—Official publication has been made by the Department of Fomento of the granting of the application of Domingo Barrios Gomez for a concession to establish a large factory for the manufacture of malt near Queretaro. The terms of the concession require that Mr. Gomez must submit the plans for the proposed factory to the department for approval within three months, that the work of construction must be commenced within six months, and that the factory must be completed and in operation within five years. It is also stipulated that not less than $150,000 must be invested in the enterprise. Mr. Gomez has organized a company, in which there are several American brewers interested, to carry out the project. The free importation of barley for the factory for a period of two years is allowed.

TEOCALTICHE, JAL.—State Government of Jalisco has granted exemption of taxes for ten years to J. Villalobos on capital invested in a soda-water factory to be established in Teocaltiche.

TORREON.—Edward B. Aldrich, son of U. S. Senator Nelson Aldrich, of Rhode Island, has been investigating the situation at Torreon with the view of establishing a plant here for the production of rubber from the guayule plant, which grows abundantly throughout a large part of Northern Mexico.

ZACAUTLAPAN.—It is announced that the Zacautlapan Iron Works, situated at Zacuatlipan, will improve its plant. Considerable machinery will probably be installed.

MISCELLANEOUS.

DAM.—Durango.—Octaviano Meraz has applied for a concession to construct a dam in the Baluarte River, at Pueblo Nuevo, Durango.

STOCK YARDS.—City of Mexico.—A concession to establish stock yards near this city has been granted to Wm. H. Alexander, a civil engineer, and he is now in Kansas City, Mo., endeavoring to interest capitalists in the project.

SMELTER.—La Calera.—It is stated that a pyritic smelter will be put up by the Garreston-Sahuaripa Mining Co. at its property at La Calera, in the Sahuaripa District of Sonora. The plant is a 50-ton furnace, and is expected to be in operation within six months.

(Continued on page 298.)

*NEW YORK STATE CANAL IMPROVEMENT.—Albany, N. Y.—The bids received by Charles S. Boyd, Supt. Pub. Wks., Dec. 15, under Contract No. 2, which calls for the excavation and protection of the sides of the Erie Canal from the Mohawk River to point ¼ mile west of Lock No. 3, the construction of Locks Nos. 2 and 3, with approaches and appertaining parts, were submitted by the following: (1) Ryan Bros., 140 W. 42d St. New York; (2) Continental Engineering & Contracting Co., 306 D. S. Morgan Bldg., Buffalo, N. Y.; (3) Brodhead Contracting Co., Inc., Wilkesbarre, Pa.; (4) Casey & Murray, Rochester, N. Y.; (5) Mosier-DeGraff Construction Co., Buffalo, N. Y.; (6) Lindon W. Bates, 74 Broadway, New York; (7) Ferguson Contracting Co., 69 Wall St., New York; (8) Atlantic, Gulf & Pacific Co., Park Row Bldg., New York; (9) Church Construction Co., 126 Liberty So., New York; (10) John Dunfee & Co., 112 E. Jefferson St., Syracuse, N. Y.; (11) Eastern Contracting Co., Inc., Pittsburg, Pa.; (12) T. A. Gillespie, 71 Broadway, New York; (13) Buckley Construction Co., Schenectady, N. Y.; (14) MacArthur Bros. Co., 810 Fisher Bldg., Chicago, Ill.; (15) State Engineer's Estimate; The United Engineering & Contracting Co., 13 Park Row, New York, submitted a lump sum bid of $869,000 for the above work.

For work under Contract No. 6, bids for which were opened Dec. 17, and which calls for excavation of Erie Canal from Sta. 2571 to Sta. 2744 and protection of its banks, the construction of foundations and abutments for bridges and other incidental work, the bidders were as follows: (1) T. A. Gillespie Co., New York; (2) Mason & Hoge Co., Frankfort, Ky.; (3) F. A. Maselli & Co., 1101 Farmers Bank Bldg., Pittsburg, Pa.; (4) John Griffith, 1011 Merchants Loan & Trust Co., Chicago, Ill.; (5) Sundstrom & Stratton, 143 Liberty St., New York; (6) Buckley Construction Co., Schenectady, N. Y.; (7) John Dunfee & Co., Syracuse, N. Y.; (8) Denniston & Co., Rochester, N. Y.; (9) Eastern Contracting Co., Inc., Pittsburg, Pa., and Troy, N. Y.; (10) Lindon W. Bates, 74 Broadway, New York; (11) Henry P. Burgard, Prudential Bldg., Buffalo, N. Y.; (12) Mosier-DeGraff Construction Co., Buffalo, N. Y.; (13) Buffalo Dredging Co., 306 D. S. Morgan Bldg., Buffalo, N. Y.; (14) MacArthur Bros. Co., 810 Fisher Bldg., Chicago, Ill.; (15) Ryan Bros., 140 W. 42d St., New York; (16) State Engineer's estimate; F. A. Maselli & Co. and John Griffith also offered lump bids of $1,010,000 and $1,331,912 for the work. The itemized bids were as follows:

BIDS RECEIVED AT ALBANY, N. Y., DEC. 15, ON CONTRACT NO. 2, FOR NEW YORK STATE CANAL IMPROVEMENT.

Quantities.	Items.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1	Clearing	$1,000.00	$1,000.00	$1,000.00	$900.00	$1,000.00	$950.00	$1,000.00	$1,000.00	$940.00	$1,200.00	$1,000.00	$800.00	$1,000.00	$1,500.00	$1,000.00
700	Cu. yds. grubbing	0.25	0.29	0.25	0.25	0.25	0.24	0.25	0.50	0.235	0.30	0.25	0.25	0.25	0.25	0.25
545,000	" " all excavation	0.49	0.48	0.45½	0.47	0.50	0.50½	0.40	0.60	0.4848	0.398	0.52	0.49	0.52	0.44	0.52
50,000	Ft. B. M. sheeting and bracing, spruce	40.00	40.00	39.00	35.00	40.00	38.00	35.00	50.00	37.60	35.00	40.00	45.00	40.00	45.00	40.00
112,000	Cu. yds. forming embankment	.15	0.17½	0.16	0.12	0.15	0.14¼	0.12	0.25	0.141	0.15	0.15	0.13	0.15	0.18	0.15
2,000	" " lining	1.50	1.50	1.50	1.25	1.50	1.40	1.25	1.50	1.41	1.80	1.50	1.25	1.75	1.80	1.50
12,000	" " puddle	1.25	1.45	1.30	1.25	1.25	1.18	1.25	1.50	1.175	1.50	1.25	1.40	1.50	1.50	1.25
340,000	Ft. B. M. yellow pine timber and plank	40.00	40.00	40.00	36.00	40.00	38.00	32.00	60.00	37.60	41.00	40.00	38.00	45.00	48.00	40.00
36,000	" " yellow pine in stop logs	75.00	80.00	80.00	65.00	75.00	70.00	65.00	75.00	70.50	70.00	75.00	60.00	75.00	90.00	75.00
12,000	" " spruce timber and plank	35.00	40.00	39.00	35.00	35.00	35.00	30.00	35.00	32.90	40.00	35.00	30.00	35.00	40.00	35.00
2,000	" " Norway pine timber and plank	40.00	40.00	40.00	40.00	40.00	38.00	35.00	40.00	37.60	45.00	40.00	30.00	40.00	45.00	40.00
88,000	Lin. ft. round timber in cribs	0.12	0.14	0.12	0.12	0.12	0.11½	0.10	0.24	0.1128	0.13	0.12	0.13	0.14	0.14	0.12
60	Foundation piles, 15 ft. long each	3.75	4.25	4.50	3.45	3.75	3.00	3.75	6.00	3.525	3.00	3.75	4.30	4.50	4.50	3.75
2,000	" " 20 ft. " "	5.00	5.00	4.90	4.60	5.00	4.75	5.00	6.00	4.70	4.50	5.00	4.50	6.00	5.00	5.00
100	" " 25 ft. " "	6.25	6.00	6.00	5.75	6.25	5.90	6.25	7.00	5.875	6.00	6.25	7.00	7.50	7.00	6.25
60	Mooring " 20 ft. " "	6.50	7.75	6.50	6.50	6.50	6.15	6.50	9.00	6.11	7.00	6.50	6.50	6.50	7.50	6.50
36	" " 25 ft. " "	7.75	8.50	7.75	7.25	7.75	7.40	7.75	9.00	7.285	8.00	7.75	7.50	7.75	9.25	7.75
1,000	Docking " 25 ft. " "	6.25	7.50	6.10	6.25	6.25	5.95	6.25	8.00	5.875	6.00	6.25	6.00	7.50	7.50	6.25
10,000	Ft. B. M. sheet piling	45.00	46.00	50.00	45.00	45.00	43.00	45.00	45.00	42.30	50.00	45.00	46.00	45.00	50.00	45.00
13,500	Cu. yds, 1st-class concrete	7.50	5.75	6.58	6.95	7.00	7.25	6.50	7.25	7.05	6.50	7.25	5.90	7.50	6.80	7.50
69,000	" " 2d- " "	6.00	4.90	6.05	5.85	6.00	6.30	5.50	6.25	6.11	6.00	6.25	4.95	6.50	5.80	6.50
5,000	" " 3d- " "	5.00	4.65	5.80	5.10	5.50	5.25	4.50	5.25	5.17	5.30	5.15	4.75	5.50	5.40	5.50
3,500	Sq. ft. Portland cement sidewalks	0.20	0.20	0.20	0.15	0.20	0.20	0.16	0.20	0.188	0.19	0.20	0.20	0.20	0.24	0.20
6	Cu. yds. 1st-class masonry coping	20.00	20.00	20.00	20.00	20.00	19.00	20.00	40.00	18.80	24.00	20.00	20.00	20.00	24.00	20.00
600	" " dry retaining wall, including coping	4.00	4.00	4.50	4.40	4.00	3.80	4.00	5.00	3.76	4.50	4.00	3.50	4.75	4.50	4.00
2,500	" " wash wall, including coping	2.00	2.00	2.00	2.20	2.00	1.90	1.50	3.00	1.88	2.40	2.00	2.25	2.40	2.40	2.00
10,000	" " stone filling	2.00	2.00	2.00	2.00	2.00	1.90	1.50	2.50	1.88	2.00	2.00	1.90	2.00	2.40	2.00
300	Lin. ft. 12-in. vitrified pipe. laid	0.60	0.60	0.60	0.50	0.60	0.57	0.60	0.60	0.564	0.75	0.60	0.30	0.60	0.70	0.60
300	" " trenching and backfilling for 12-in. pipe.	0.20	0.20	0.20	0.20	0.20	0.19	0.20	0.20	0.188	0.24	0.20	0.20	0.20	0.24	0.20
24,000	Lbs. cast-iron pipe and specials	0.03	0.03½	0.03	0.03	0.03	0.03	0.03	0.03	0.0282	0.03½	0.03	0.03	0.03	0.03½	0.03
250,000	" iron castings	0.04	0.04½	0.03½	0.04½	0.04	0.03¾	0.04	0.04	0.0376	0.04½	0.04	0.04	0.04	0.04	0.04
38,000	" steel castings	0.06	0.06	0.07	0.06½	0.06	0.05½	0.06	0.06	0.0564	0.07	0.06	0.06	0.06	0.07	0.06
94,000	" structural steel	0.06	0.05	0.06½	0.06	0.06	0.05¾	0.06	0.06	0.564	0.06	0.06	0.05	0.06	0.07	0.06
2,000	Lin. ft. raising D. & H. tracks ......per lin. ft.	0.50	0.58	0.50	0.45	0.50	0.47½	0.50	1.00	0.47	0.60	0.50	0.40	0.50	0.60	0.50
2	Upper gates for Lock No. 2, complete in place, each	900.00	850.00	996.00	900.00	900.00	855.00	900.00	900.00	846.00	1,000.00	900.00	950.00	900.00	1,000.00	900.00
2	Middle gates for Lock No. 2, complete (except counterweights), in place ......each	2,950.00	2,500.00	3,000.00	2,900.00	2,950.00	2,800.00	2,950.00	2,950.00	2,773.00	3,000.00	2,950.00	3,100.00	2,950.00	3,000.00	2,950.00
2	Lower gates for Lock No. 2, complete, in place "	2,450.00	2,300.00	2,500.00	2,450.00	2,450.00	2,330.00	2,450.00	2,450.00	2,303.00	2,600.00	2,450.00	2,600.00	2,450.00	2,500.00	2,450.00
	All cast-iron bearing plates for quoin posts for upper, middle and lower gates for Lock No. 3, including anchor bolts	1,300.00	1,200.00	1,500.00	1,400.00	1,300.00	1,235.00	1,300.00	1,300.00	1,119.32	1,500.00	1,300.00	1,400.00	1,500.00	1,500.00	1,300.00
18,000	Lbs. cast-iron counterweights	0.02½	0.02¾	0.03	0.02½	0.02½	0.02¼	0.02½	0.02½	0.0235	0.03	0.02½	0.02½	0.02½	0.03	0.02½
7,360	Ft. B. M. oak miter sills for upper middle and lower gates for Locks Nos. 2 and 3	100.00	100.00	100.00	100.00	100.00	95.00	100.00	100.00	94.00	100.00	100.00	100.00	100.00	100.00	100.00
1	30-in. sluice gate including hand operating stand.	250.00	275.00	300.00	275.00	250.00	240.00	250.00	250.00	235.00	300.00	250.00	230.00	250.00	300.00	250.00
	Total	$969,290	$866,920	$945,655	$935,099	$973,305	$988,026	$852,330	$1,089,475	$958,998	$913,850	$999,765	$867,274	$1,034,670	$941,610	$1,022,640

BIDS RECEIVED AT ALBANY, N. Y., DEC. 17, ON CONTRACT NO. 6, FOR NEW YORK STATE CANAL IMPROVEMENT.

Quantities.	Items.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1	Clearing	$750.00	$750.00	$700.00	$750.00	$750.00	$750.00	$700.00	$750.00	$750.00	$700.00	$750.00	$750.00	$750.00	$800.00	$750.00	$750.00
4,500	Cu. yds. grubbing	0.25	0.25	0.25	0.25	0.25	0.25	0.20	0.25	0.25	0.23½	0.25	0.25	0.29	0.25	0.25	0.25
1,900,000	" " all excavation	0.53½	0.61½	0.46¼	0.62½	0.53½	0.62	0.60	0.62	0.57¼	0.58½	0.564	0.52	0.49¼	0.527	0.63	0.65
440,000	Sq. ft. channeling	0.14	0.12	0.12	0.12	0.14	0.17	0.11	0.11	0.20	0.11¼	0.14	0.14	0.11	0.12	0.12½	0.12
30,000	Cu. yds. forming embankment	0.12	0.15	0.15	0.15	0.15	0.15	0.14	0.15	0.15	0.14	0.15	0.15	0.18	0.15	0.15	0.15
1,700	" " puddle	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.40	1.50	1.50	1.75	1.50	1.50	1.50
500	Ft. B. M. white oak timber and plank	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	56.50	60.00	60.00	60.00	65.00	60.00	60.00
560	Ft. B. M. hemlock timber and plank.	30.00	35.00	35.00	35.00	35.00	35.00	30.00	35.00	35.00	33.00	35.00	35.00	40.00	40.00	35.00	35.00
2,700	Cu. yds. second-class concrete	5.25	5.50	5.25	5.50	5.50	5.50	4.50	5.50	5.50	5.20	5.50	5.50	5.00	5.00	5.50	5.50
300	" " third-class concrete	4.75	5.00	4.90	5.00	5.00	5.00	4.50	5.00	5.00	4.75	5.00	5.00	4.75	4.50	5.00	5.00
15	" " first-class masonry coping..	20.00	24.00	24.00	24.00	21.00	24.00	24.00	24.00	24.00	22.50	24.00	24.00	20.00	25.00	24.00	24.00
9,000	" " wash wall, including coping.	0.80	1.00	0.80	1.00	1.00	1.00	1.00	1.00	2.00	0.95	1.00	1.00	1.15	1.00	1.00	1.00
60	Sq. yds. stone paving	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.50	0.95	1.00	1.00	1.00	1.00	1.00	1.00
800	Lin. ft. fencing	0.15	0.15	0.15	0.15	0.15	0.15	0.18	0.15	0.15	0.14	0.15	0.15	0.15	0.15	0.15	0.15
500	Sq. yds. macadam pavement	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.50	0.95	1.00	1.00	1.15	1.00	1.00	1.00
	Total	$1,158,100	$1,312,012	$1,005,982	$1,331,912	$1,161,567	$1,343,962	$1,274,359	$1,317,562	$1,281,867	$1,247,028	$1,219,322	$1,131,762	$1,075,235	$1,135,462	$1,344,062	$1,381,662

NEW YORK STATE CANAL IMPROVEMENT.—Albany, N. Y.—Bids were opened by Charles S. Boyd, Supt. Pub. Wks., Dec. 15, 16 and 17 for the improvement of the Erie, Oswego and Champlain canals. Bids were taken under six contracts and the itemized bids received for these contracts are given in this issue. Bidders were also permitted to submit a lump sum bid. Attention is called to the fact that the State Engineer's itemized estimate of cost is given for each of the six contracts following. The contractors were instructed that if their bid exceeded any item of the State Engineer's estimate by more than 20%, or if their total bid exceeded the total estimate by more than 10%, the bid might be considered informal and might be thrown out. This accounts, in a measure, for the uniformity in the unit bidding prices. Excavation included both earth and rock, and, although there is no classification in the bidding sheets, the profiles and cross-sections showed exactly what the engineers had found by digging test pits and by borings. Samples of the materials thus found were kept along the line for inspection by prospective bidders. The bids received Dec. 15 on Contract No. 1, which calls for the excavation of the river channel from Northumberland to Fort Miller, and from Crocker's Reef Dam to Fort Edward, the construction of Crocker's Reef Dam, and the approaches to the head and foot of "The Land Line," and other incidental work, were as follows; (1) Lindon W. Bates, 74 Broadway, New York; (2) John Dunfee & Co., 112 East Jefferson St., Syracuse, N. Y.; (3) State Engineer's estimate:

Bids Received at Albany, N. Y., December 15, 1904, Under Contract No. 1.

Quantities.	Items.	(1)	(2)	(3)
1	Clearing	$640.00	$700.00	$650.00
2,400	Cu. yds. grubbing	.23¾	.30	.25
913,500	" all excavation	.57¾	.78	.59
26,000	" forming embankment	.11½	.14	.12
90,000	Ft. B. M. yellow pine timber and plank	33.50	43.00	35.90
70,750	Lin. ft. round timber in cribs	.11½	.14	.12
10	Mooring piles, 30 ft. long	7.00	8.00	7.50
3,500	Lbs. iron and steel fastening	.06	.07	.06
1,000	Cu. yds. 1st class concrete	7.75	8.21	8.00
4,110	" 2d "	6.75	6.50	7.00
300	" 3d "	5.85	5.90	6.00
7,750	" wash wall, including coping	1.90	2.40	2.00
6,250	" stone filling in cribs	1.40	1.80	1.50
326	" 1st class rip rap	3.40	4.00	3.50
	Totals	$605,008	$799,259	$619,846

MEXICO.

(Continued from page 296.)

SMELTER.—City of Mexico.—It is reported here that the Mexican Silver-Lead Mines Co., recently organized in London, England, with a capital stock of $250,000, will build a smelter in Mexico. It is not stated at what place the proposed plant will be located.

MINING PROPERTIES.—City of Mexico.—At a recent meeting at Portland, Me., the Mexican Consolidated Mining & Smelting Co. voted to increase the capital stock from $500,000 to $2,500,000. It is understood that the increased capital will be used for acquiring additional properties.

MINE DEVELOPMENT.—Durango.—Hilario Losoya, of Guanacevi, is stated to have organized a company with $5,000,000 capital to develop rich mining properties near Mr. Losoya's home at Guanacevi, and at other points in state of Durango. The first operation to be undertaken is the construction of a tunnel five klimeters long.

MINING COMPANY.—Chihuahua.—El Continento Mining Co. has been organized in this city, with capital of $30,000 silver. W. K. Ryan is Pres. and Howard Anderson, Gen. Mgr. Company proposes to develop properties in the Sta. Eulalia District, and will commence work at once, sinking a shaft on the Ibera, and will resume work on the tunnel started by H. Anderson about two years ago.

MINING WORK.—Chihuahua.—The Chicago-Mexican Consolidated Mining Co., of 408 Tacoma Bldg., Chicago, Ill., has acquired group of mines in the Cusihuiriachic District, Chihuahua, and has already commenced development work. Arrangements are under way, it ns said, for the erection of a mill. Platt McDonnald, of Torreon, Coahuila, is Supt. at the mines.

MINING COMPANY.—Chihuahua.—The Rhodes Consolidated Mines Co., of Mexico, was recently organized in New Jersey, with a capital of $200,000, to acquire and work properties in western section of state of Chihuahua. The company has also acquired a valuable concession from the government. George Hamilton, 74 Wall St., New York, is reported interested. John McGrath, Apartado 22, Oaxaca, Mexico, is Ch. Engr.

FOREIGN CONTRACTS—EXPORT NEWS.

SEWAGE DISPOSAL.—England.—Town Council of Scarborough is considering borrowing of $325,000 for sewage disposal works on the bacteriological system.

ELECTRIC PLANT EXTENSIONS.—Scotland.—It has been recommended that Corporation of Edinburgh secure a further loan of $450,000 for extensions of the electricity undertaking.

TELEGRAPH CABLE.—Switzerland.—The Swiss Budget for 1905 provides $46,000 for the supply and laying of telegraph and telephone cable in the Simplon Tunnel, which is now nearing completion.

STEAMSHIPS.—Scotland.—Andrew Weir & Co., Glasgow, Scotland, are reported to have secured contracts for the steamers for the British steamship line which is to operate between British Columbia and Mexico.

SEWAGE DISPOSAL, REFUSE DESTRUCTOR.—England.—Union District Council of Twickenham has applied for sanction to borrow $200,000 for sewage disposal works and for a refuse destructor. F. W. Pearce is Surveyor to the Council.

ELECTRIC TRAMWAY.—Spain.—Don Ubaldo Fuentes Birlayu has applied for a concession for an electric tramway in Cadiz. Particulars regarding the concession can probably be obtained at the Direccion General de Obras Publicas, Madrid.

RAILWAY.—China.—It is stated that a railway is about to be constructed from Nanchwang to Kinkang. The cost will be about $2,400,000, and half of this sum will be subscribed by natives in Kiangsi, the remainder being met by a subsidy from the Government.

TRAMWAYS.—England.—The London United Tramways Co., will, it is stated, shortly commence the construction of the whole of the authorized lines in Kingston, Surbiton, the Dittons, Molesey, New Malden and Wimbledon. The total length is 15 miles and the cost, irrespective of street widenings, will be about $2,500,000.

HYDRAULIC WORKS.—Greece.—A survey of Thessaly having in view the construction of important hydraulic works, has been undertaken. The survey is independent of the general one of Greece, which is being carried out by the Ministry of War, and is to ascertain the possibility of draining extensive areas of marshy land, and the irrigation of other sections.

SILK MANUFACTURE.—France-Belgium.—It is reported that a company has been formed in Lyon, France, with a capital of $300,000 for the manufacture of artificial silk (mercerized cotton). It is also proposed to open another factory, employing 400 operatives, in northern France. A similar factory, with a capital of $500,000, has been organized in Brussels, Belgium.

BATH HOUSE.—Austria.—John S. Twells, U. S. Commercial Agent at Carlsbad, Austria, reports that the municipality of Carlsbad has just decided to build a new bath house at a cost of $300,000, and states that this may offer a chance for American firms in the sanitary, china, and fixture trade; catalogs giving details of manufactures and prices should be forwarded to the Stadtrath of Carlsbad.

FLOUR MILLING MACHINERY.—Russia.—A large machinery house in Rostor-on-Don, Russia, having received several inquiries from Russian mills asking for prices, etc., of American flour milling machinery, desires to be placed in communication with manufacturers of that kind of machinery. Catalogues and other information will be received by Joseph Spiero, 11 Broadway, New York, and he will forward them to the concern in Russia.

RAILWAY.—Africa.—A further extension of the Cape-to-Cairo Ry. to a point 350 miles north of the Zambesi has been decided on. It is reported that rapid progress is being made with the line north of the Victoria Falls, and it is expected that early next year this road will be completed to Kalomo, the administrative center of North-west Rhodesia. From this point which is 100 miles north of the Zambesi work will be continued in a northerly direction to Broken Hill, which is situated 250 miles beyond Kalomo. Sir Charles Metcalfe, Consult. Engr., for the railway is now superintending the work on the Zambesi.

INDUSTRIAL EXPOSITION.—Austria.—An industrial exposition is to be held in Reichenberg, Austria, in 1906, and already work has been commenced in grading and preparing the grounds, so that everything, including installation will be ready on the opening day in May, 1906. All branches of Bohemian industry are to be represented. Foreign exhibits, however, are to be restricted to such auxiliary machines and materials as are not produced in Bohemia. The exhibition would seem to offer an excellent opportunity to American manufacturers of advanced processes and novelties to cultivate a widely distributed and difficult market. Applications for space, etc., which should be accompanied by full particulars of the proposed exhibit, should be addressed to An die Ausstellungsleitung, Grafl, Schloss, Reichenberg, Bohmen.

ELECTRIC TRAMWAY.—Scotland.—John N. McCunn, U. S. Consul at Dunfermline, Scotland, reports that a company has been formed at Dunfermline by local parties to build an electric railway through the west of Fifeshire. Application was to be made to Parliament in November for provisional orders to carry out the scheme. The stock was then to be floated, and it is expected the company will begin the construction of the road in the spring of 1905. The road will be 16 miles in length, and besides connecting Fife, Dunfermline, Inverkeithing, Cowdenbeath and Lochgelly will ultimately touch the new naval base, on the Firth of Forth. The estimated initial cost is $632,645. The Fife Electric Power Co., which is now building a power plant, will supply the power required for all purposes in the operation of the tramway system.

ELECTRIC TRAMWAY.—England.—Advices from this country state that contracts for tramway work at Belfast have been let as follows: Contract No. 1, permanent way, road bed, paving and bonding, J. G. White & Co., 22 A College Hill, London, E. C., $1,403,215; Contract No. 2, overhead electrical equipment, J. G. White & Co., $194,045; Contract No. 3, underground feeders, telephone and test wires, and spare conduits, J. G. White & Co., $316,315; Contract No. 4, steam dynamos, switchboard, three-phase plant, condensing plant, overhead traveler and station lighting, British Westinghouse Co., $204,665; Contract No. 5, boilers, superheaters, mechanical stokers, economizers, coal and ash-conveying plant, steam exhaust and feed pipes and pumps, Fairbairn, Lawson, Combe, Barbour, Ltd., $98,700; Contract No. 6, double-deck electric tramcars, Brush Co., $468,120.

LIGHT HOUSE.—Egypt.—Herbert J. Gedge, Deputy Controller-General, Ports and Lights Administration, Alexandria, Egypt, will receive tenders until May 1, for erection of a light house for Sanganeb Reif, near Suakin, Red Sea. A general description of the proposed work is as follows: Open ironwork tower; height of focal line 165 ft. above high water; light of first order showing all round, with red danger sector of approximately 140°, in lantern; petroleum burning type of lamp, group flashing; recommended to be built on screw piles driven into the coral; quarters required for four lightkeepers to be constructed in the framework of lighthouse, kitchen, mess-room, office, store rooms, etc.; isolated store room for petroleum on piles, connected by a bridge with lighthouse; fresh water tanks and hand pumps; copper speaking tube to lantern from bottom of lighthouse; also gongs in men's quarters for communication from lantern; masonry caisson under lighthouse at least 6 ft. above high water, protected by a parapet 3 ft. high and 3 ft. thick, internal diameter of caisson to be at least 20 ft. more than outer piles; this caisson to be used for promenade for men, stowage of tanks, landing, stores, etc.; wooden pier to edge of reef on iron piles will be required for landing stores, etc. There is a small concrete platform on the reef, which could be used to aid in landing materials, etc. Sanganeb Reef lies about 13 miles to eastward of Sheikh-el-Barghut Harbor, which place affords a very good anchorage. The reef is accessible in nearly all weathers.

LIGHTING.

Kearny, N. J.

Sealed proposals will be received by the Town Council of the Town of Kearny for the public lighting of the town, on Wednesday evening, December 28, 1904.

Bidders will submit proposals for furnishing not less than ninety (90) arc electric lights of 2,000 candle power each and of standard type, for five years, to be increased from time to time as the Town Council may require, to a maximum of one hundred and forty (140) arc electric lights of like character and power; also for not less than four hundred (400) incandescent electric lights of thirty-two (32) candle power each, of standard type, for five years, to be increased from time to time as the Town Council may require, to a maximum of six hundred and fifty (650) incandescent electric lights of like character and power; also for one hundred and sixty (160) incandescent electric lights of sixteen (16) candle power each and of a standard type, for five years, to be increased to a maximum of four hundred (400) incandescent electric lights of like character and power, should the service so require.

Such lights to be located in the streets and other public places of the town as directed by the Town Council.

Bids must be in the hands of the Town Clerk at or before nine o'clock p. m. on Wednesday, December 28, 1904.

The council reserves the right to reject any or all bids.

By order of the Town Council of the Town of Kearny.

THEODORE C. WILDMAN,
25-1t Town Clerk.

ELECTRICAL TOWING.

There will be a meeting of the sub-committee of the Commission authorized by a concurrent resolution of the two houses of the Legislature, of the Session of 1904, and appointed to investigate electrical towing systems applicable to the canals of the State of New York, held at the Murray Hill Hotel, New York City, Thursday, January 5th, 1905, at eleven o'clock A. M., at which time the Committee will receive plans and systems or devices, with their claims, for electrical towing on the enlarged canals of the State of New York.

It is requested that persons desiring to be heard at that time notify the Chairman, Elmer L. Corthell, at his office, No. 1 Nassau Street. 25-2t

STONE.

Bids wanted for getting out 200 cubic yards stone per day for No. 6 Gates crusher. Quarry and plant furnished. Address "STONE," Engineering News. 25-4t

DEPARTMENT OF THE INTERIOR, United States Geological Survey, Reclamation Service, Washington, D. C., November 28, 1904.—Sealed proposals will be received at the office of the United States Reclamation Service, Montrose, Colorado, until 2 o'clock P. M., December 31, 1904, for the construction of a frame building for the accommodation of the offices necessary for the use of the United States Reclamation Service in connection with the construction and maintenance of the Uncompahgre Valley Project. Specifications, form of proposal, and plans may be inspected at the office of the Chief Engineer of the U. S. Reclamation Service, Washington, D. C.; at the office of the District Engineer, U. S. Reclamation Service, Chamber of Commerce Building, Denver, Colo., and at the office of the U. S. Reclamation Service, Montrose, Colo. Each bid must be accompanied by a certified check for 5% of the amount of the bid, payable to the order of the Secretary of the Interior, as a guaranty that the bidder will, if successful, promptly execute a satisfactory contract and furnish bond in the sum of 50% of the contract price for the faithful performance of the work. It is understood that all bids are submitted subject to the sufficiency of the title to the land upon which it is proposed to erect the building. The right is reserved to reject any or all bids, to accept one part and reject the other, and to waive technical defects, as the interests of the service may require. Bidders are invited to be present. Proposals must be marked: "Proposals for the construction of Office Building, Uncompahgre Valley Project." E. A. HITCHCOCK, Secretary. 22-4t

For other Proposal Advertisements see pages 35, 36, 37, 38 of Advertisements

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